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## SPECIAL ARTICLE.

### RETROSPECTS AND PROSPECTS IN GENITO-URINARY SURGERY.<sup>1</sup>

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ALTHOUGH I have but two or three days in your great city, my friends, Professor Dennis and Professor Alexander, have afforded me the privilege of addressing you. I must disclaim at once any intention of giving you anything that is either original or novel. I shall talk of retrospects and prospects in genito-urinary surgery. The end of an old century, the beginning of a new one very naturally makes us look before and behind us. We pick out the landmarks of the past and are tempted to peer into the future. To you, just entering on the practice of medicine, the review of some of the achievements of the past may seem like ancient history. The discoveries of times that are no more may well furnish texts, however, for the illumination of the future.

It would be false modesty in me if, in reviewing genito-urinary surgery, I should attempt to pass unmentioned my own contributions to the science as it has grown in the last half century. You will pardon me, then, if I sometimes seem too personal in recalling the advances that have been made.

#### *Litholapaxy.*

The most prominent feature in the progress of genito-urinary surgery during the last century was undoubtedly the development by Bigelow of a method of crushing calculi within the bladder and then the added invention which enabled him to wash out the debris of the crushed stone at a single sitting. It was my privilege to see Professor Bigelow at some of his earliest work on this subject and to hear his anticipation of what might be expected from this invention when it was perfected. May I add that all of these anticipations have been realized. Litholapaxy has taken a deserved place as one of the great surgical measures that saves mankind suffering and reduces mortality.

I had the privilege of demonstrating in England Professor Bigelow's method with instruments furnished me by himself. I have seen his method for treatment of vesical calculus replace all others. I had occasion the other day shortly before my voyage to America to

look over the old apparatus which he sent me from America. It is, in all essential features, the apparatus in use all over the world at the present moment for the accomplishment of litholapaxy. The invention came from your great compatriot's brain in all its perfection and needed no after improvement to make it completely successful. Very seldom is it the lot of an individual thus to perfect his work before giving it to the world. It is a sure sign of the genius of the man.

#### *Otis' Urethrometry.*

Bigelow's work in litholapaxy was undoubtedly influenced by the patient investigations of another distinguished American genito-urinary surgeon. When I had the pleasure of meeting him, in 1878, Professor Bigelow mentioned to me Dr. Otis' investigation as to the size of the urethra and the amount of distention of the healthy urethra would permit without suffering injury. This very practical work of Otis' was almost a necessary preliminary to Bigelow's success. When I saw Bigelow's perfected instrument afterward, I remembered his mention of Otis' work and realized how much he owed to the distinguished New Yorker.

#### *Etiology of Vesical Calculus.*

Bigelow's invention has tended also to throw light on the etiology of vesical calculus. Especially the etiological influence of enlarged prostate in the formation of stone became evident as the result of his methods of treating calculus. This influence of the prostate in the production of calculus has been a favorite subject of study on my own part.

It is not generally known that one of the most important contributions to the etiology of stone in the bladder were made as long ago as 1851 by Rainey. His paper was concerned with the investigation of molecular coalescence. He showed that stones could be artificially produced when the solution of certain salts dissolved in urine was disturbed by the presence of unfavorable factors. This chemical side of the origin of stone in the bladder has never been given the attentive investigation it deserves.

It has been a great pleasure to me to be conducted through this magnificent building by my friends among the faculty. I have seen laboratories and class-rooms and anatomical rooms fitted out in a style that is worthy of this great city and of the new century that is beginning. I have especially admired the magnificent equipment of your laboratory. I

<sup>1</sup> Abstract of an address delivered at the Cornell Medical College, New York City.

can not think of any subject that I could suggest that would be more suitable for your investigation in these laboratories and that would tempt more to research than the etiology of vesical calculus. No subject is more fascinating or more important and the mere repetition of Rainey's experiments would undoubtedly throw light on this interesting subject. It seems too bad that this patient investigation with its suggestive results should so far have proved profitless. Let us hope that the new century and American enterprise will make that use of them they deserve.

#### *Prostatic Hypertrophy.*

In 1893, Professor J. William White of Philadelphia announced a new method for the treatment of prostatic hypertrophy. On theoretic grounds he suspected a close relationship between the testicle and the prostate. He demonstrated experimentally on dogs that the removal of the testicle led to a decrease in size even of the normal prostate. He argued that the excision of testicles in the human being would probably lead to a reduction in the size of enlarged prostate. The method was tried on several patients and the surmise of Dr. White proved to be not without some foundation. Other investigators found that the excision of a portion of the vas deferens had the same effect on the prostate as the excision of the testicle.

This method of treating prostatic hypertrophy has given rise to a good deal of controversy. Undoubtedly the method of treatment, whether by removal of the testicles or vasectomy, has given a certain measure of successful results. Those results are so variable, however, as to leave the subject almost more obscure than before. In certain cases the measure of relief afforded is very striking. In others practically no good is accomplished. The whole subject requires reinvestigation and will well repay any work that may be done on it.

Meantime these seven or eight years during which Professor's White's work has been the subject of controversy have not been wasted. We are beginning to recognize now better than ever that under the term, enlarged prostate, or hypertrophy of the prostate, there are included not one but many pathological conditions. To talk of enlargement of the prostate simply without any further definition of the term is now almost as crude and unscientific as if a surgeon were to talk of enlargement of the breast without defining the different forms, of enlargement of the tonsils without explanatory differentiation. Our success in the treatment of prostatic hypertrophy depends on our ability to differentiate the various forms of the disease which occur. We need to determine precisely the character of the enlargement, and for this the only sure means is ocular inspection. A case that illustrates this very well was

under my care within a month before I sailed from England. The patient suffered less than two years ago from a stone in the bladder which was removed by litholapaxy. Another calculus formed before the year was out and a second recurrence of the stone took place before the expiration of two years. With a cystoscope I found that there existed a pouch in the enlarged prostate. A tongue of prostatic tissue extended backward into the bladder forming a sort of lid for a box within the folds of the prostate and it was in this that the stones had formed. Besides the stone which had escaped into the bladder and which had been detected by the sound, two smaller ones were in process of formation within the prostatic pouch. I made a median incision and twisted off the tongue of prostatic tissue and the man made a good recovery. Two weeks after the operation he was practically well.

Recently I have described three forms of prostatic hypertrophy. These three are so characteristically distinct from each other that it is very unlikely that they will admit of uniformity of treatment, or that any one method of dealing with them will bring the relief of symptoms in all cases. Since landing in New York I have seen Dr. Alexander's specimens and these have modified my opinion as to the forms of prostatic hypertrophy which exist. Dr. Alexander's specimens certainly extend our information as to prostatic condition beyond what it was before. I am free to confess that they were for me a suggestive chapter in the pathology of the prostate. I have not been wedded to my own divisions in prostatic pathology and the modification of my views since seeing the specimens here forms a good illustration of the fact that we must not be ready to formulate cast iron distinctions that will admit of no modification. I must take this occasion to express how much genito-urinary surgeons owe to Dr. Alexander and how much we expect from his future work.

The first form of prostatic hypertrophy and one that is of a great deal of interest is the simple enlarged prostate which bulges upward and backward into the bladder. This form of prostatic hypertrophy is more generally cured than any other by castration, vasectomy, or by the Bottini operation. What Bottini's operation really accomplishes in these cases is an obliteration of the upper projecting portion of the enlarged prostate which because of its projection in the trigone is interfering with urination.

The second variety of prostate is the one that I have already described in speaking of the relapse of stones in the bladder. In these a tongue of prostatic tissue or a median lobe of the prostate is the active agent that interferes with the emptying of the bladder. For these cases castration or vasectomy as a rule does absolutely no good. The median tongue of tissue must be removed.



The blind variety of prostatic hypertrophy is that in which there occur in the midst of the enlarged prostate hard glandular growths, adenomata they really are. For this form of prostatic hypertrophy castration and vasectomy are always failures and Bottini's operation will invariably be done without success. I shall never forget one of my first experiences with this form of enlargement of the prostate. The case was one in which for the removal of a large stone in the bladder, a suprapubic lithotomy was done. The stone was removed without any difficulty and, in passing my fingers around the base of the bladder in order to be sure that no small calculi were left, I pushed out one of these adenomata. It came away without any bleeding and required very little effort for its removal. No other method of treatment would have been successful, however, in relieving the symptoms of enlarged prostates or in preventing recurrence of the stone.

What is needed at the present moment then is not further discussion of the merits of castration and vasectomy, nor of the limits of utility of Bottini's operation, but a precise diagnosis of the form of prostatic hypertrophy which really exists in individual cases. In prostatic surgery as in every other branch of surgery that has developed during the past century, what is needed is more accurate diagnosis with adaptation of the treatment to the specific affection which exists and not the application of general methods to a supposedly general condition which has no existence in individual cases.

#### *Surgery of Kidney.*

The surgery of the kidney even in its present stage may be regarded as one of the most important advances of the century that is just passed. What has been done for renal stone, growths, distentions with pus and urine, abnormal mobility and other painful affections of this part is sufficient to indicate this. Nor is it at all likely that we have reached limits in the surgery of the kidney which cannot be extended much further with great advantage. The interesting question for us just now, however, is, What is there in the future of the surgery of the kidney? Is there, for instance, anything that can be done by surgical means for the relief of albuminuria, or for the prevention of the development of degenerative conditions. There is no doubt that albumin has been found for long periods in the urine in connection with stone or abscess of the kidney and that after the surgical treatment of these conditions the albumin has disappeared and the patient has completely recovered.

A very interesting subject that I discussed in a paper that appeared some years ago in the *Lancet* seems worthy of consideration here. I allude to the effects of tension arising out of excessive excretory efforts on the part of the kidneys and resulting in congestion and in-

flammation which in some instances are probably more disastrous and far reaching in their local consequences than the severe surgical conditions of the kidney already mentioned.

There is no more delicate organ in the body than the kidney. There is no doubt that the delicate, complicated, secretory structure suffers severely from congestion. When the congestion is intense, lasting harm may be done. In several cases I have had the opportunity to see congested kidneys in the very acme of their congested state. They are not only of a deep color that is almost black, but the capsule of the kidney is tense and shining, because so overstretched. If such a kidney is punctured during an exploratory operation upon the kidneys the blood is found to be present in it under great pressure, so that it gushes forth.

There is no doubt that this pressure, as in the testicle, may work serious and lasting harm. It is not improbable that under circumstances like these, lesions are produced which lead to the formation of connective tissue and prove the foundation of the hypertrophic and atrophic condition of subsequent chronic nephritis. Renal glaucoma is the name that to me seems most suggestive for this condition.

I had occasion to say some years ago that if certain organs of the body occupied other positions than those where Nature has placed them a variety of morbid conditions to which they are respectively liable would receive somewhat different treatment from that which has hitherto been adopted. Of the complex organs of the body the eye furnishes us with the best example of what surgery is able to accomplish in removing obstacles and impediments to vision and in combatting the disastrous effects of intraocular tension and the degenerations arising therefrom.

Modern antiseptic surgery, however, has brought even the internal organs of the body within the range of the surgeon's skill without imposing any very great risk on the patient. For the condition of congestive tension in the kidney, an aseptic exploration with puncture of the capsule might easily be done without great danger. This operation would perhaps serve as a prophylactic against the development of kidney disease later in life. I have had some personal experience with cases of this kind that have proved very encouraging. Others have taken up the subject in a way to make me think that this idea may be developed successfully. At the next session of the British Medical Association there are two questions that I have proposed to set down for discussion.

First.—To what extent may kidney tension, as in inflammatory conditions and congested states, be responsible for the serious damage in these organs that often follows. Is this excessive tension the etiological factor in chronic degeneration, or chronic Bright's disease? In a word does the expression renal glaucoma

convey an idea that is important in kidney pathology?

Second.—When is it expedient and justifiable to relieve this tension by exploratory laparotomy and puncture of the capsule of the kidney?

The kidney and its functions remain as yet a great mystery. The urine is an extremely complicated solution and its suppression may cause the most serious symptoms. Re-absorption of its constituents may readily give rise, as every genito-urinary surgeon knows, to septic conditions. The irritation of a simple bougie, or of a sound, or the wound produced by urethrotomy may easily prove the point of serious infection when urine is passing over it. Long ago under Lord Lister's influence I suggested the use of boracic acid as a prophylactic for these septic accidents. It has proved of great service to the genito-urinary surgeon, but there still remains a large field for investigation as to the ways and methods of making the urine aseptic.

The understanding of urinary tuberculosis is a chapter and a very important one that is just opening up. Janet and Guyon and Albarran have been doing good work in this specialty and the obscurities of pathology and of clinical observation are clearing up.

At the present time good men are at work all over the world in the specialty of genito-urinary surgery. It is no wonder that we have advanced. Practice of the specialty has become a most honorable profession. Great advances can be looked for in the new century that is opening up and especially in this new country where you have the enterprise, the equipment, and the opportunity for the work.

## ORIGINAL ARTICLES.

### CEREBROSPINAL MENINGITIS (WEICHSELBAUM, JAEGER) TREATED BY REPEATED LUMBAR PUNCTURE.

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CEREBROSPINAL MENINGITIS, whether epidemic or sporadic, is now recognized as an acute infectious disease the direct inciting cause of which is a micro-organism. The bacteriological investigations open to us on this very important subject divide themselves into two distinct groups. A large number of cases investigated by one group of observers corresponds to a type of disease which thus far seems to have occurred either in small isolated groups of cases, or in localized epidemics in barracks or military hospitals. These cases have been met also in large and more disseminated epidemic groups.

In this type of disease we find bacteriolog-

ically one distinct and constant micro-organism. This is a diplococcus which has been found either in the fluid withdrawn from the arachnoid by lumbar puncture during life, or in the exudate on and about the meninges post-mortem. It is seen mostly in the pus cells, sometimes outside of the same. It has a form very similar to the gonococcus, is decolorized by Gram and reminded the earlier observers of the gonococcus. This is the so-called *diplococcus meningitidis* of Leichtenstern, Weichselbaum, Jaeger, Heubner, Finkelstein, Councilman, Mallory, Wright, and many others.

These cases have been accepted by Weichselbaum, Jaeger, Councilman and Osler to correspond to the type of so-called epidemic cerebrospinal meningitis of older writers. We cannot conclude, however, that these cases in which the *diplococcus meningitidis* is found represent the only forms of cerebrospinal meningitis. There is another group equally as large, if not larger, in which a number of observers, whose skill and accuracy is undoubted, have found a micro-organism which corresponds to the *diplococcus pneumoniae* of Fraenkel. These cases also have occurred in epidemics or large groups. It seems, however, that these cases have for the most part been complicated with lobar or bronchopneumonia or have followed as a complication of otitis media.

In order to reconcile the diverse bacterial results in both these groups of cases, Netter, Foa et Burdoni Uffreduzzi, and Baumgarten have attempted to show that the etiology in the cases of cerebrospinal meningitis caused by the *diplococcus meningitidis* and that of the cases caused by the *diplococcus pneumoniae* was identical. The intracellular diplococcus of Leichtenstern, Weichselbaum and Jaeger was with them only a degenerate form of the diplococcus of Fraenkel.

To accept this theory would be to overthrow the unity of etiology of most diseases, a position no one is willing to assume. We must to-day thus recognize that there are two distinct groups of cases, one of much severer course and of a more fatal character, usually complicating or occurring with lobar pneumonia or bronchopneumonia caused by the *diplococcus pneumoniae*. The primary affection, however, of cerebrospinal meningitis, if we accept the investigations as they stand in the literature, is caused by the intracellular diplococcus of Leichtenstern, Weichselbaum and Jaeger, the so-called *diplococcus meningitidis*.

To-day, the important question is whether this disease may occur sporadically. If so, then cerebrospinal meningitis is a disease which occurs epidemically and sporadically and in both forms has a similar etiology and symptomatology. One peculiarity of this disease is that cerebrospinal meningitis is scarcely epidemic in the same sense as typhoid fever, scarlet fever or measles, or even diphtheria. We rarely find that several members of a family are attacked. If we study the liter-



ature—and this is well brought out by Councilman—it is seen that the disease occurs epidemically in the sense that a large number of cases will occur at one time or at one season of the year. The cases crop up at distant parts of a town or city widely separated from each other. The disease has no great tendency to spread. It seems to localize itself in groups in the places in which it occurs. This is well illustrated in the epidemics reported in barracks in which the disease has in few instances shown a tendency to spread outside these military stations to the populace of the town or city in which they were situated, and this only to a limited extent.

The epidemic reported by Councilman is one of the largest. In this epidemic a glance through the cases shows them to be isolated ones. The map shows the groups of cases occur widely separated. In this respect the comparison by Osler of this disease to pneumonia may be apt.

Henoch raises the question as to what in this disease can be called the epidemic and what the sporadic occurrence of the disease. We certainly would not call a group of eight or ten cases an epidemic. It may represent a local outbreak of exceedingly limited character. Scarlet fever is very much of this nature; we have local outbreaks of the disease constantly epidemic, but rarely epidemics. If we have the isolated occurrence of a small number of these cases; if such cases come to us from streets widely separated; if such cases also extend over a number of months, we may fairly call them sporadic.

It is to this important group of cases, the sporadic form of the epidemic cerebrospinal meningitis type, as it occurs in children, that I refer. Of the 111 cases studied by Councilman 29 occurred in infants and children below the tenth year of life. It is, therefore, quite frequent in this class of subjects. There are no large epidemics among children on record in which detailed symptomatology is given. If we analyze the epidemic cases of Councilman, we find a striking similarity in the symptomatology. If the case was that of an infant, the disease set in quite regularly with convulsions, soon followed by unconsciousness, rigidity of the muscles of the neck (*genick starre* of the Germans), and opisthotonus. In older children the symptoms of invasion were headache, fever, vomiting, stiffness of the neck, delirium and opisthotonus. The subsequent symptoms found in the summaries of Councilman's cases are much the same. The fever continued, there were chills, delirium, *tache cérébrale*, opisthotonus, herpes, roseola, the pupils in some cases being unequal, in others there was a total or partial blindness. In a few cases otitis is noted. Hyperesthesia and tenderness of the muscles of the neck, diminished reflexes, and finally arthritis make up the points found very briefly noted in the *résumé* of cases.

The vomiting may occur at the outset or in the course of the disease and is cerebral in origin. It may occur during the disease and prevent the taking of food (Councilman). The delirium may be either of a low muttering character or of a violent nature. There may be intervals of consciousness alternating with delirium. Pain in the back of the neck, extending over the whole body and amounting to hyperesthesia, may be present. Headache was intense. Patients were extremely sensitive to touch.

Rigidity of the muscles of the neck in some cases extended to the muscles of the back. It was present in all but 29 of Councilman's patients. As is well known, it is the characteristic symptom of the disease and has led the French to the adaptation of the German term *genick starre* as the most characteristic of the symptoms. Coma varied in intensity from day to day and alternated with periods of stupor and consciousness. Paralyses were infrequent. Facial paralysis was present in two patients. In another patient paralysis of the leg was noted. In another hemiplegia.

The skin lesions, generally petechial, which have led to the name of spotted fever, are not noted to a marked degree in the more modern epidemics. In the children in Councilman's set of cases we find erythema, petechiae, hemorrhages and herpes. In the fatal cases petechiae and hemorrhages are noted.

*Eyes.*—In cases of the children's series we find conjunctivitis, desiccating keratitis, strabismus, contraction and dilatation of the pupils with little or no reflex action of the pupils, inequality of the pupils, neuritis of varying grades from reddening of the disc to violent inflammation of the choked disc variety, post-neuritic atrophy and purulent choroiditis (Edwin E. Jack, Boston Children's Hospital).

*Ear.*—Ear symptoms in many cases vary from plain deafness to otitis with discharge from the ears or even mastoiditis. The ear complications which have been especially studied by aurists in children may amount to complete deafness or may affect the gait. The child in such cases walks with a swaying tottering motion (Gahlberg, Councilman).

*Nose and Throat.*—In most epidemics the secretions from the nose and throat have been examined, and it was found that they contained diplococci which decolorized with Gram. Councilman examined fifteen patients, in ten of whom he found diplococci as above.

*Joints.*—These were affected in adults (Osler, Councilman). We find no joint complications in the children. The blood showed leucocytosis. The temperature and pulse will be considered later.

If we study the cases either of sporadic or epidemic cerebrospinal meningitis in the older text-books on diseases of children, we see that the writers seem to regard the cases which occur sporadically and those which occur epi-

demically as distinct. The symptomatology of the epidemic cases is much what we find in the present epidemics. Some writers, such as Hensch, are not quite certain as to whether they should regard the cases occurring in small groups as being similar in etiology and symptomatology as the cases occurring in epidemics of larger numbers. For my part, I would regard cases as sporadic which occur in very small limited groups, the isolated cases having no relation with each other. The absence of anything like an extended epidemic is also an important guide and the occurrence of the cases at long intervals, though in the aggregate they may amount to six or ten cases in a hospital service in the course of the year.

The cases which I report were those occurring in my hospital service in the past year. The first was admitted April 23, 1900; the second, April 29, 1900; the third, May 3, 1900; the fourth, August 21, 1900; and the fifth October 26, 1900. Two occurred together, but had no relation to each other. We may fairly call such cases sporadic. They lived in widely-separated parts of the city, and there could not be traced any relationship between these cases and others of a like character.

The symptoms of invasion in the youngest patient, an infant eight months old, are the most interesting. They began with a conjunctivitis six days before admission, which conjunctivitis preceded meningeal symptoms. The infant developed convulsions and went into a semicomatose condition with a febrile movement, but no vomiting. In this condition it was admitted to the hospital.

The other cases occurred in older children. In one patient, a boy four and a half year of age, the illness was preceded by a fall on the head. (I lay no stress on this as in most children there is an indefinite history of a blow or a fall.) In this case the initial symptoms were vomiting, fever, difficulty in swallowing, no rigidity of the muscles of the neck, and general convulsions followed a day before admission by stupor. In this condition the patient was admitted to the hospital ward.

In another patient, a female child eight years of age, there was a history of being pushed at play and of striking her head against a railing. There was no wound. Five days before admission she complained of headache, vomiting; she became delirious, in which condition, with opisthotonus, she was admitted to the ward. Another patient, a female child nine years of age, complained sixteen days before admission of headache, vomiting, with chills, followed by fever. The chills recurred daily for ten days. The headache was frontal and occipital. The neck became rigid and painful. She became dull and apathetic. In this condition she was admitted.

The last patient was a male child twelve years of age. Three days before admission there was frontal headache with constant

vomiting. Fever, delirium, and apathy were also noted. There was also some pain in the stomach.

If we compare the histories of the older children we find the symptoms of invasion much the same. The history of the infant finds its counterpart in some of the cases of Councilman (Case CI.), but it is of especial interest on account of the specific diplococcus conjunctivitis which preceded the meningitis. The other symptoms of these cases after admission may be grouped as follows: Rigidity of the muscles of the neck (*Genick starre*). This was present in all the cases, in some being so pronounced as to give an opisthotonus. There was great pain in the muscles of the neck if any attempt was made to straighten the same.

*Cerebral Symptoms.*—In most patients there was delirium, stupor or coma; in one simply headache. The headache in cases in which the periods of unconsciousness alternated with delirium or semiconsciousness seemed to be the principal head symptoms. There was great hyperesthesia of the surface in some. The patients would cry out if the bed was jarred or the skin touched. In one infant there were unilateral convulsions.

*Reflexes.*—The patellar reflex may have been absent; those of the plantar were present. In some patients the reflexes were increased later in the disease. In another patient the knee-jerks were exaggerated on admission. In one case bilateral clonus at the ankle was noted. Babinski's sign was absent in all cases. Kernig's symptom was present in all but one patient and persisted for some time into the convalescence.

*Skin Eruptions.*—In some there was herpes labialis noted on the upper and lower lip. In others there were successive attacks of erythema, resembling scarlatinous eruptions. *Tache cérébrale* was present in all patients.

*Joints.*—In one patient there was marked tenderness of the right shoulder, but no swelling. During lucid intervals the patient complained of this pain. In one infant there was felt a peculiar rubbing or friction when the knee-joints were manipulated. There seemed to be slight swelling. In one patient there was abscess of the foot, which when incised revealed pus containing diplococci the exact nature of which remains undetermined.

*Eye Symptoms.*—These were confined in the infant to conjunctivitis. Diplococci were found in the pus of the discharge, and were obtained in pure culture and decolorized with Gram. The pupils reacted to light. The infant did not seem to see. In the other patients expert examination of the fundus showed ischemia of the arteries of the optic disc. In another, the right eye was normal; the left showed signs of beginning neuritis. In still another the veins of the disc were swollen, and there was some exudation. In this patient signs of neuritis in both eyes persisted until convalescence. There was no palpable impairment of sight. In another patient, there was double



optic neuritis, which disappeared just before the patient's discharge.

**Nasal Secretions.**—Nasal discharges in the case of the infant showed diplococci which decolorized with Gram.

**Temperature.**—This was not characteristic in that it might have been seen in any other suppurative process. For the most part the curves showed a daily rise, which at the outset and in the active stage of the disease reached  $106.4^{\circ}$  F. There is in some patients a distinctly intermittent character to the curve—the temperature reaching the normal daily, or near the normal. In others the temperature was persistently high with remissions daily of a degree or more. The most important parts of the curves are shown here.

**Chills.**—Repeated chills, violent in character, occurred in one patient in the course of the disease. In the others, reference to the histories show that they occurred at irregular intervals of varying severity.

**Circulation.**—The pulse showed marked irregularity; the respirations were increased for the most part, varying in the number per minute throughout. This occurred without any disease of the lungs. The heart in one patient showed nothing abnormal on admission, but after the lapse of a month an aortic systolic murmur developed. Another patient had an aortic regurgitant murmur on admission. Inasmuch as in both patients there were no symptoms referable to the heart, we are unable in the absence of an examination prior to the present illness to state positively as to the presence of an acute endocarditis.

**Lungs.**—The lungs did not give definite signs of pneumonia.

**Spleen.**—This was enlarged in only one of the five patients.

**Paralysis.**—Left facial palsy was noted on admission in Case II., and weakness of the left upper and lower extremities. Right facial palsy was noted in the infant, which also had right-sided convulsions toward the close of the disease.

Clinically the cases seemed to divide themselves into three distinct types. In the one class, in which the little patients were not very ill, there was headache, rigidity of the neck, fever, and perhaps at night a little delirium; yet the patients sat up in bed with the ice caps on the head and seemed comfortable in the intervals of head pains. They were rational. We had two such patients. One of these is recorded in the histories; the other has been omitted because we did not observe it during a sufficiently long period, the patient's parents insisting on taking the boy home. He had, however, greatly improved when discharged. In another class are the *foudroyant* cases in which death supervened in a short time, as in the infant. The onset of the coma was early; it continued and deepened until the fatal issue. The third type, the usual form, was that in which the patients came in with a noisy

delirium. They had rigidity of the neck, stupor, with periods in which they could be roused and made to answer questions.

**Lumbar Puncture.**—The series of cases which I report were punctured after the method of Quincke at repeated intervals. The effects of this method of procedure and its ultimate results will be discussed in detail under the heading of treatment. In this place the bacterial, macroscopic and microscopic details are of interest. The five cases were punctured fifteen times, including one dry tap. Fluid varying in quantity from 3 to 50 c.c. was withdrawn at each puncture. In the series, punctures were performed on the fifth, sixth, eighth, ninth, tenth, thirteenth, sixteenth, nineteenth, twenty-fourth, twenty-eighth, thirty-sixth and thirty-seventh day of the disease. It will be seen that fluid was obtained at all periods of the process.

If we refer to the table it will be seen that the fluid withdrawn was turbid on the fifth day of the disease; on the sixth day cloudy; eighth day turbid; tenth day turbid and flaky; thirteenth day turbid, thick and purulent; it continued to be turbid up to the thirty-seventh day of the disease. This shows that there may be marked exudate even at an early period, and later puncture after chills may give a turbid, flaky or even purulent looking fluid. Councilman found that a diminution of turbidity went often hand in hand with absence of micro-organisms. In our cases we found micro-organisms in the turbid, opalescent and less turbid fluids. Micro-organisms grew in all the turbid fluids. In the opalescent or clear fluids micro-organisms were found, by stain, and sometimes were absent by culture. They were absent, by culture, in only one of the turbid cases. On the other hand, they were positive in all the cover-glass spreads except one and in this case culture showed the diplococcus. It seems that the difficulty of culture is rather the obstacle to a positive result, in some cases, rather than the abundance of micro-organisms. In all cases there was found a diplococcus which corresponded to that described by Weichselbaum and Jaeger. It answered the test by the Gram method. It was cultivated pure in all the cases and in all the repeated punctures, except in one. The details of the cultivation given to me by the assistant pathologist, Dr. E. Libman, of the Mt. Sinai Hospital, show that in the case in which the culture was negative, the fluid was turbid in both punctures; in both the diplococcus of Weichselbaum was found in the cover-glass spread. In both, culture failed; one culture being contaminated, the other being negative. In the infant, the secretion from the eyes gave pure cultures of the diplococcus of Weichselbaum. The nasal secretion showed diplococci which decolorized with Gram in two cases.

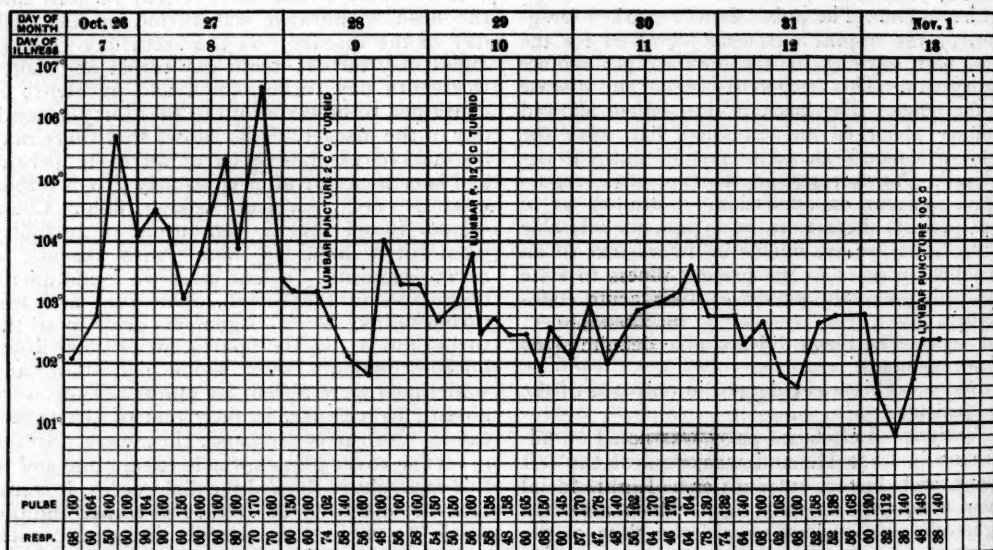
I here append the pathologist's report: "All of the fluids withdrawn, save one, contained

pus cells. The fluids from Case V. also contained mononuclear cells. Secondary fluids contained less cellular elements than the primary ones. None of the fluids contained sugar (one being too small in bulk to allow of an examination). Much albumin was always present. With nitric acid, the rings usually measured from  $\frac{1}{8}$  to  $\frac{3}{8}$  of an inch in height. The secondary fluids contained less albumin, except in Case V. Typical diplococci responding negatively to the Gram procedure were found in all the fluids except in Case IV. and the second fluid from Case III. They were usually intracellular and perinuclear, occasionally extracellular. They were usually more abundant in the more turbid fluids. They were present in spreads from the conjunctival discharge and the nasal secretion of Case V.

except in Case VI. Cultures were made from the nose in Case V. only; no diplococci were found in the culture, there being a pure culture of the *staphylococcus albus*. Cultures from the conjunctival discharge showed numerous colonies of the diplococci.

The diplococci obtained in all the fluids were always the same. They all corresponded closely to Weichselbaum's description. They varied much in size in the same colony, a rather characteristic point. They always failed to stain by Gram. Capsules were never present. The growths were very distinct on agar, but better in serum-agar. The growth is very abundant in serum-glucose-agar made by adding one part of serum (preferably human) to three or four parts of 2-per-cent. glucose-agar.

FIG. 1.



Female infant eight months old, unconscious on admission. Chart shows the effect of lumbar puncture on the pulse and respiration. Fatal case.

For cultural purposes, agar, serum-agar, and for Cases III. and VI. a medium made by adding serum to glucose-agar were used—as a rule a few drops of fluid were dropped into each of two or three tubes. These tubes were tilted at frequent intervals so as to allow the condensation water to flow over the medium (Heubner method). Whenever a positive result was obtained a growth was found in all the tubes. The growth was found within twenty-four hours in all the fluids except in that from Case III., which gave a growth only after three days. As a rule the colonies were quite numerous; the more turbid fluids usually giving better growths. All the growths were pure.

The cultures were positive in all the cases

Inoculations made from the best growths on the various agar media in bouillon, or on gelatin or potatoes, were never followed by any growth. Even if glucose and serum were added to the bouillon, inoculations were unsuccessful. The vitality was usually tested by ascertaining for how long a time a growth could be obtained by inoculating from one agar tube to another daily. In Case V. a growth was obtained for eleven days; in Case IV. one day; in Case I. (first fluid) six days. On serum-agar the organisms could be daily transplanted for a longer time. Exact data were not obtained, except that the organism from Case V. after two months is still actively growing on serum-glucose-agar.

Case I.—Lumbar puncture on admission; 2



c.c., turbid; eighth day of disease. Tenth day, 12 c.c., turbid and flaky; fluid did not flow. Thirteenth day, 10 c.c., turbid.

*Case II.*—Lumbar puncture on admission; nineteenth day of disease; 15 c.c., turbid. Twenty-fourth day, 10 c.c., turbid.

*Case III.*—Lumbar puncture on fifth day of disease; 40 c.c., cloudy, turbid fluid withdrawn. Sixteenth day, 15 c.c., opalescent, less turbid. Twenty-eighth day, 35 c.c., opalescent fluid.

*Case IV.*—Lumbar puncture sixth day of disease, 50 c.c., cloudy serum withdrawn. Ninth day, 3 c.c. withdrawn. Nineteenth day, 10 c.c., turbid, higher up. Twenty-fourth day, 30 c.c., turbid fluid. Thirty-sixth day, 16 c.c., turbid fluid.

*Case V.*—Lumbar puncture on ninth day of disease; 25 c.c., great pressure, turbid. Thirty-seventh day, 5 c.c., slightly turbid. Spread from nose, diplococci decolorized with Gram.

*Treatment.*—The treatment of cerebrospinal meningitis has hitherto been a palliative one. Recognizing the fact that we have to deal with an acute infectious disease, the measures in vogue hitherto and to-day are directed toward alleviating the symptoms and supporting the strength of the patient until the time has arrived when the disease itself has run its course. The patient recovers or succumbs. Even to-day we have no specific remedy; we know that the prognosis in the form of disease which is the theme of this paper is much better than that of the pneumococcus form. We can do much for the patients. The general treatment is first directed toward eliminating the poison and, if possible, limiting the exudate. For this in all cases we give iodide of potassium in very liberal doses. We do this on the same lines that we would in a chest effusion or a subacute exudative process in the lung. We treat the fever with sponging. In two of the cases of this series the patients found great comfort in baths at 105° F. Especially was the benefit noted when chills and pains in the extremities were harassing symptoms. Netter mentioned this method of treating these cases in the recent International Medical Congress. Aufrecht has advocated warm baths. There are other minor methods which have been pursued in these cases; they include the ice helmet for the headaches; hypnotics for the delirium and the mercurial cathartics at regular intervals to counteract the constipation. In all this there is nothing but what has been done all along for these cases.

In this series of cases, however, we have pursued a method of treatment, that of repeated lumbar puncture which is directed more especially toward relieving symptoms due to the accumulation of exudate in the subarachnoid space and about the brain and cord. We certainly can justly trace symptoms, such as persistent headache, somnolence, coma, delirium, convulsions, to accumulation of fluid in and about the brain and cord, and to a cer-

tain amount of toxemia resulting from the absorption of inflammatory products. Repeated chills also may fairly be traced to purulent accumulation and renewed absorption of infectious material from the exudate. The mechanical relief of conditions of increasing pressure and diminution of gross amount of infectious material is certainly indicated in cerebrospinal meningitis of the variety described in this paper just as it would be in a pleurisy with effusion or a pericarditis, should symptoms of pressure arise. This was done systematically on indications in all the patients of this paper.

The lumbar puncture was carried out with all the details of antisepsis. Most of the patients were punctured three times in the course of the disease and one more frequently. There was no routine in the procedure, but each case was studied and when symptoms of pressure or accumulation of exudate appeared the puncture was made. The indications were continuous headache, accompanied by periods of somnolence and delirium, repeated chills with a sharp rise of temperature, an increase in the rigidity or opisthotonus, increasing or continued coma. If the immediate effects of puncture were favorable, the procedure was repeated if there was an exacerbation of the symptoms. If continued improvement followed puncture, the patient was no longer disturbed. In this conservative way, no ill effects of this method of treatment were observed.

In one patient the effects of puncture were remarkable; the patient upon exacerbation of symptoms requested that the procedure be repeated. The puncture showed that in some cases the fluid was under great tension and would flow from the cannula with a spurt so that quite a quantity could be withdrawn before the fluid ceased to flow freely.

In one case the primary lumbar puncture had no perceptible effect, the somnolence increased and the second lumbar puncture (15 c.c.) had only a very temporary effect, a dry tap followed; after a few days a fourth puncture, in which 10 c.c. of turbid fluid were withdrawn was followed by a gradual improvement in symptoms, after which the patient was not disturbed.

A second patient was very delirious before the first puncture; after puncture and withdrawal of 50 c.c. of turbid fluid, under great tension, the patient was quieter, slept well and became more rational; she continued to do moderately well until eleven days after, when she became more noisy, had severe headache and repeated chills. She was cyanosed; she was again punctured and 10 c.c. of turbid fluid was withdrawn. Her condition continued unsatisfactory; repeated chills supervened and she was again punctured and 30 c.c. of turbid fluid under great tension withdrawn. Improvement set in the next day the headache diminished and the child could move her head more freely;





Another puncture shows respiration 28 and pulse 100 before and 26 to 104 after puncture.

In another case of lumbar puncture, the respiration and pulse were as follows:

Before.		After.	
Respiration.	Pulse.	Respiration.	Pulse.
1. 28	84	28	100
28	80	28	100
28	92	26	100
2. 24	104	24	96
24	96	24	98
24	96	24	116
24	108		
3. 24	102	24	104
24	108	24	104
24	112	24	100

It can only be said that the pulse is in some cases temporarily diminished in frequency, in others not at all, and that the respiration continues much the same. This is important because in those cases of cerebrospinal meningitis in which just before the fatal issue respiration ceases, whereas the heart continues its action, lumbar puncture will not aid us in restoring the respiratory function. If we look over the results obtained by repeated lumbar puncture, we can justly say that they have relieved symptoms. The relief seems to be more in the direction of a diminution of pain and a reduction of those symptoms which may fairly be traced to toxemia and mechanical pressure. At the same time, we cannot but feel that the withdrawal of an appreciable amount of any fluid from the spinal canal which contains bacteria and the toxic products of inflammation must be beneficial in the long run on the course of the disease. It is premature as yet to say to what extent the prognosis is favorably influenced by this procedure. It is, however, a method which it is certain will come more and more into general vogue, and take its place with aspiration of the pleural cavity as a curative method.

*Case I.*—Female, eight years, seven months. England. Admitted April 26, 1899. No tuberculous history. Other members of the family in good health. No other history as to diseases of childhood; has never had a cough but always delicate. Five days before admission was pushed while at play and struck the back of her head against a railing. There was no cut, but ever since she has complained of pain in the head. She has been restless at night crying out with pain. She has vomited all her food. Bowels constipated. Passed usual amount of urine. Has had no pain or discharge from the ears.

On admission it was found that her general condition was poor; tongue moist and coated; delirious; picks at her nose; pupils are equal

in size and react to light; no paralysis; knee reflex exaggerated; tache cérébrale; ankle clonus of right ankle; rigidity of the neck; also tenderness; ptosis of the left eye; herpes of the upper lip; marked Kernig; lungs and heart normal; sounds forcible; liver and spleen negative; abdomen rigid; urine acid 1026; no albumin; no sugar. Expert examination showed double optic neuritis. Ears normal.

April 27th, lumbar puncture, 50 c.c. of a cloudy serum withdrawn under great tension. Fluid showed leucocytes and diplococci, intracellularly by stain and culture. After puncture patient was quieter and passed good night, being more rational. April 28th, second puncture, only 3 c.c. of fluid withdrawn; blood-count shows 15,600 leucocytes to cubic centimeter. May 5th, complains pain in left ear. May 8th, general condition not good; pulse intermittent; pain in right shoulder. May 9th, general condition worse; pain in right shoulder, no impairment of motion; hyperesthesia of skin; complains of severe headache and is very noisy at times. May 10th, condition bad; had repeated rigors, cold and cyanosed. Lumbar puncture, 10 c.c. of turbid fluid withdrawn higher up at a new site, the old puncture site being a dry tap. May 11th, rigor lasting five minutes followed by a temperature of 104° F. May 15th, repeated chilly sensations. Lumbar puncture, 30 c.c. of a turbid fluid removed. May 17th, condition improving; moves head without pain, but still has headache and pain in back of neck; is rational and delirious at intervals; sleeps well at night. May 19th, report of culture of above fluid showed diplococcus intracellularis; still has chilly sensations. May 23d, has intervals of quiet alternating with delirium; is especially noisy toward evening; cries out with pain. May 27th, lumbar puncture, 16 c.c. of turbid serum withdrawn. May 28th, general condition improved; is brighter. June 2d, blood-count, red 4,481,250, white 8,200. June 12th, lumbar puncture, dry tap. July 9th, expert examination of eyes by Dr. May; fundus normal, except that the margin of the discs are blurred, especially on the right side; no exudation; vessels slightly tortuous. July 23d, out of bed one hour. Aug. 16th, discharged cured.

*Case II.*—Female, nine years old, admitted April 29, 1900. Has had measles; no scarlet fever or pertussis or any pulmonary trouble; no history of ear disease. A few days before admission she fell, but had no bleeding; sixteen days ago complained of headache, vomiting; had chill followed by fever; chill recurred daily for ten days; no chills during past six days; headache is frontal and occipital; neck was painful and rigid; has had no cough; no eruption; has been rational. On admission the patient appeared dull and apathetic; slight left facial palsy; tongue deviates to

right; absence of knee reflex; weakness of left extremities; Kernig present; no ankle clonus; pupils react slowly; tache cérébrale. Lungs, equivocal signs. Heart, irregular in action; aortic regular murmur. Spleen, large.

April 30th, lumbar puncture for diagnosis. Discharge from ears. May 1st, more somnolent; Kernig more marked; abdomen retracted; delirious at night. May 2d, lumbar puncture, 15 c.c. withdrawn. May 7th, lumbar puncture, 10 c.c. of turbid fluid withdrawn. May 8th, by expert examination ischemic arteries of disc were found; no neuritis. June 10th, sitting up. July 24th, discharged cured.

*Case III.*—Male four and a half years old, admitted May 3, 1900. Has had measles and pertussis. Eight days before admission fell down striking the head behind the left ear; was stupid for two hours; no escape of blood from the ear, nose or mouth; no convulsions nor palsy nor vomiting; went to school and played for five days after, during which time he complained of pain at the site of injury; day before admission vomited; convulsions of the muscles on both sides of the body set in; there was fever and stupor, but no rigidity of the neck; some difficulty in swallowing.

On admission there was stupor and restlessness if disturbed; tenderness of the back of neck, but no rigidity of the neck. Pulse irregular. Organs negative; urine negative. Reflexes at knee absent; Kernig present; abscess on plantar surface of left foot. Expert examination of fundus of eye shows some exudation of discs, left more than right.

Lumbar puncture, 25 c.c. of a turbid fluid withdrawn under great pressure; diplococcus intracellularis by stain, abscess of foot contained diplococci and streptococci in short chains. After puncture child became quieter, said he felt better, asked for bedpan, whereas before this he had passed his movements involuntarily. May 7th, cover-glass spread from nasal secretion showed diplococci; some staining, others decolorizing with Gram. General condition good; has bilateral clonus; exaggerated knee reflex. May 13th, has had occasional headaches, but is improving; vomits at times. May 15th, scarlatinous erythema, twice in past three days. May 17th, repeated chilly sensations. May 18th, no Kernig. May 28th, feels chilly; slightly cyanosed; slight clonus. June 1st, lumbar puncture, 5 c.c. slightly turbid fluid withdrawn; spread shows diplococcus intracellularis. June 18th, systolic aortic murmur which is heard in vessels of neck. July 9th, examination of eyes shows descending neuritis of both eyes, with exudation in right. July 26th, discharged cured.

*Case IV.*—Male twelve years old, admitted August 21, 1900. Father has phthisis; mother is in good health. Boy has had measles. Three days ago complained of headache and vomited persistently. Fever followed and for two days he vomited his food. He was delirious, apa-

thetic and complained of pain in his head and stomach. The delirium continued until admission.

On admission he was well nourished; delirious; tongue moist and coated; herpes labialis; marked rigidity of the neck with pain on motion; slight conjunctivitis; patellar reflexes absent; marked Kernig; tache cérébrale. Lungs, equivocal signs. Heart, apex forcible; pulmonary second sound accentuated. Spleen, not large. Abdomen, retracted.

August 22d, lumbar puncture, 40 c.c. cloudy fluid withdrawn. Two hours after puncture headache is less; pus cells in fluid, stain and culture, diplococcus intracellularis. August 23d, rigidity still present; knee reflexes absent; headache absent; erythema face and neck, chest and abdomen. August 24th, Kernig still present. August 25th, knee jerks present; rigidity of neck diminished; headache at night. August 28th, herpes labialis; optic discs show hyperemia. September 2d, Kernig present. September 3d, lumbar puncture, 15 c.c. fluid withdrawn, less turbid than previous puncture. Kernig less marked; left eye shows beginning neuritis. September 15th, lumbar puncture, 35 c.c. opalescent fluid withdrawn; pains in neck and back; tremor of face, tongue and hands; Kernig increased; rigidity of neck. October 1st, has had occasional headaches, especially in the afternoon; these headaches varied in severity; Kernig gone. October 19th, discharged cured.

*Case V.*—Female infant, eight months old, admitted October 26th. Family history negative. Six days ago mother noticed infant's left eye was red and had a purulent discharge; three days after noticed that the infant had fever and a discharge from the nose; two days ago had a convulsion which was not repeated; has since been in a semicomatose state; no cough; no vomiting.

On admission, general condition poor; infant is cyanosed; eyes are rotated upward; pupils react to light; there is a purulent discharge from both eyes; no nasal discharge; rigidity of neck. Lungs, equivocal. Heart, liver and spleen negative; abdomen distended.

October 28th, right-sided convulsions lasting fully an hour; rigidity of neck; reflexes exaggerated. Lumbar puncture, 2 c.c. turbid fluid withdrawn which showed diplococcus intracellularis in culture and spread. Pus from eyes showed diplococcus intracellularis in spread and by culture diplococcus decolorizing with Gram pure. October 29th, lumbar puncture, 12 c.c. viscid, flaky fluid aspirated, also cultivated pure found same diplococcus corresponding as above. Infant is comatose. Rigidity of neck; marked Kernig. Reflexes increased. October 31st, both knee-joints somewhat swollen and give a dry rubbing fremitus on manipulation. Pupils moderately dilated do not react. Diarrhea with green stools; discharging pus from eyes and nose. November



1st, convulsions repeated, involving whole right side; following this infant had right facial palsy; eyes rolled upward; slight opisthotonus. Lumbar puncture, 10 c.c. thick cloudy fluid; culture as above. November 2d, convulsions repeated. Infant became cyanotic, stopped breathing, but the heart's action continued beating 150 per minute; fairly regular; artificial respiration performed; breathing began again; died. Respirations ceased before heart.

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#### DRAINAGE IN ABDOMINAL SURGERY.<sup>1</sup>

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MANY of the problems involved in abdominal surgery have been settled, not always in the same way, it is true, but by a general consensus of opinion which is the outcome of our gradually accumulated knowledge. Many of the procedures practised in abdominal surgery have been agreed on. For instance, every surgeon agrees and insists that his hands, instruments, the field of operation, etc., must be clean—surgically clean; and it doesn't matter whether a man believes in "bugs" or not, he says, "You must be clean;" nor does it matter whether he scrubs his hands until the superficial epithelium slips, dyes them and bleaches them in strong chemicals, or merely scrubs his hands and rinses them in alcohol, still he emphasizes the fact that one must be clean. Not only is cleanliness next to godliness in surgery, but it is godliness itself.

While some surgeons make a short abdominal incision and some make a long incision, all agree that the incision should be sufficiently ample to allow the operator to work easily and expeditiously. While some surgeons employ silk ligatures and sutures within the abdomen and others use catgut; some steam their silk fractionally, others boil it once only, still others do both; some sterilize their catgut by dry heat, others cumolize it; yet all main-

tain that whatever material is employed and by whatever process it is prepared, it must be sterile, non-irritating, easily absorbed, and of the smallest size commensurate with safety.

We all agree that loss of blood is the chief factor in the production of surgical shock. I dare not include in this category of agreements the various methods of closing the abdominal incision, for if the gentlemen who practise the different methods of closing the abdomen were to suddenly agree, we might be forced to draw the same inference that the new waiter did at the medical banquet, where, after several courses had been served, the new waiter said to the old waiter, "I believe these doctors are getting drunk." The old waiter replied, "I don't see any signs of it." The new waiter replied, "I don't either except that they are beginning to agree with each other."

Touching many other points there is also a general consensus of opinion. Why can there not be, then, some well-defined principles in the matter of abdominal drainage which can be settled. To this end I have invited the attention of this distinguished body. Ever since Robert Houston in 1701 incised the abdomen of Margaret Miller and left a "small tent in the lower angle of the wound," drainage has been considered a question of prime importance in abdominal surgery. Indeed, incision and drainage were about all the surgeons dared to do until the immortal McDowell deliberately performed a tumor from Mrs. Crawford in 1809.

That drainage is essential and desirable in some cases is evident, that it is unnecessary and undesirable in many cases is equally clear.

*The Objects of Drainage.*—The chief purposes for which drainage is employed are as follows: (1) To drain away existing septic material. (2) To afford an exit for the sepsis when the operator fears he has possibly infected his patient. (3) To provoke adhesions and thereby wall off weak spots from the remainder of the abdominal contents. (4) To keep the peritoneal cavity free of blood and other fluids. (5) To allow of a more certain knowledge of the conditions present in the abdomen. (6) Gauze drains are sometimes employed as tampons to control hemorrhage.

*To Drain away Septic Material.*—There can be no question of the propriety of drainage in those cases in which sepsis is already present. Its value has been emphasized many times in cases of suppurating appendicitis which may be taken as typical of septic cases. But it is to be noted, when we come to apply this rule of action to other cases presumed to be already septic, that the surgeon, who does not follow a routine, formerly drained many cases that he now feels safe in closing without drainage. By way of illustration, take the following recent case occurring in the hands of the writer:

Mrs. S., a very small woman, aged twenty-

<sup>1</sup> Read before the Southern Surgical and Gynecological Association, Atlanta, Ga., November 13, 1900.

three years, who forty-eight hours before she was seen had been delivered of an average-sized child. Conditions were only fair, pulse was 120, temperature 101° F. She was emaciated and the abdomen was greatly distended with an ovarian cyst. A few days' delay was advised. After ten days abdominal distention was increasing, respiration was beginning to be embarrassed. Contrary to the writer's usual custom he tapped the abdomen, drawing off thirty pints of heavy gelatinous fluid. This relieved the dyspnea but the evidences of sepsis continued. After a few days the patient having gained a little strength, she was taken to more comfortable quarters and the tumor removed. The tumor when removed weighed thirty-three pounds, which added to the thirty pounds removed at the tapping a few days previously made sixty-three pounds. The tumor and pregnant uterus probably weighed as much as the woman. The cyst was multilocular and contained many different kinds of fluid. Adhesions were numerous and evidences of a widespread peritonitis were present. Because of the bad condition of the cyst-wall a quantity of the fluid escaped into the abdominal cavity. The abdomen was thoroughly washed out and filled with the salt solution and the incision closed without drainage. The recovery was perfect. Formerly it would have been considered necessary to drain this case because of the sepsis and peritonitis. Nor is it necessary to always drain after removal of pus tubes even when the sac ruptures and the parts are bathed in pus, since it is well known that pus is frequently free from pathogenic germs. This is especially true in old abscesses. Even the presence of some forms of pathogenic germs, noticeably, the gonococci, is not an indication for drainage. The principle of drainage in septic cases is decidedly applicable when we invade the peritoneum through the vagina. Indeed, in these cases, as in suppurating appendicitis, the chief object is to drain the pus foci and serum distended tissues. Here we have ideal drainage, for gravity aids capillarity, and it is marvelous how quickly these patients often recover.

*When the Operator Infects His Patient.*—After the earlier operators lost their dread of opening the peritoneum, surgeons gradually learned that mere opening of this cavity was a perfectly safe procedure, provided the operator's hands and implements were sterile. In this day it is almost inexcusable for a surgeon to infect his patient, yet almost all of us say, "If we handle the parts a great deal it is better to drain"; unmindful of the fact that we are virtually admitting that we have probably infected our patient. With instruments, sutures and sponges thoroughly sterile, with our hands conscientiously scrubbed, washed, in chemicals, and with the use of rubber gloves,

prolonged handling of the parts ought not to be an indication for drainage.

However, the unexpected occasionally happens. Last month while the writer was doing a hysterectomy in a private house in a distant city, the patient suddenly stopped breathing, and she looked as if all the blood in her body had suddenly sidetracked itself into the capillaries and was going to stay there. It required prolonged efforts at artificial respiration, with the patient in the inverted position, to establish the respiratory function. But for the intelligent, faithful efforts of professional friends the patient would have died. The writer was kept busy trying to protect the open abdomen. Chloroform was the anesthetic being used. After this anesthetic episode everything went wrong, as they usually do when one thing gets awry. The outcome was that when the operation was finished we did not know whether the patient was infected or not. For fear that she was drainage was employed. The recovery was stormy, but satisfactory in the end.

*To Promote Adhesions and Wall off Weak Spots.*—The well-known property of the peritoneum to throw plastic lymph around any foreign body is often utilized when, after injuries to the bowel, ureter or other viscus, there is fear of leaking and consequent contamination. Here the gauze drain serves the dual purpose of isolating the vulnerable part and of drainage.

*To Keep the Peritoneal Cavity Free of Blood and Other Fluids.*—Just here is a point of departure. One set of observers cites the fact that blood or serum or any innocuous fluid when retained in the abdominal cavity makes an excellent culture medium and claims that the way to prevent infection is to keep the peritoneal cavity free of fluids. Even when hemorrhage has been controlled, advocates of this plan expect, in most cases, especially where many adhesions have been broken up, that there will be enough oozing to require drainage. They usually use a glass drain and empty it frequently with a long-nozzle syringe. Other observers take the position that the peritoneum is amply able to take care of any reasonably amount of oozing blood or, indeed, a large amount of other fluid, even when there is mild infection present, and they encourage this absorptive function of the peritoneum by leaving in its cavity a liberal quantity of normal salt solution, which is not only itself easily absorbed, but dilutes the oozing blood and thus renders it more readily absorbed. Those who follow this teaching close the abdomen without drainage no matter how many adhesions have been broken up or how much fluid is left in the peritoneal cavity.

*To Allow of More Certain Knowledge of the Conditions Present in the Abdomen.*—This argument is used particularly in favor of the drain-



age-tube in cases in which there are great fears of hemorrhage. It must be conceded that hemorrhage occurring within a few hours after the operation may be detected by means of the drainage-tube and syringe. The same is true to a less degree of the gauze drain.

The objection to this argument is that in the vast majority of cases it is unnecessary to inspect the abdominal cavity to see if there is hemorrhage. The use of suture material that will not readily break or untie, with careful inspection of every possible bleeding-point, ought to insure against hemorrhage; certainly this is true in all cases in which the tissues are not softened by sepsis or malignancy.

*Gauze Tampons.*—There is a variety of circumstances under which it is expedient to pack a bleeding-point with gauze tampons to control the hemorrhage. In these cases the gauze, of course, also acts incidentally as a drain.

*Histology and Physiology.*—Many of the reasons advanced in favor of drainage were promulgated before the histology and physiology of the peritoneum were understood. Wagner in 1877 was the first to demonstrate the wonderful ability of the peritoneum to absorb fluids, even as much as the entire weight of the animal being absorbed in twenty-four hours. Muscatello in 1895 proved that, while there were no stomata between the peritoneal endothelium cells, fluids and minute foreign bodies passed between the endothelium of the diaphragmatic peritoneum by a retraction of the cell-protoplasm and were then taken up by the open spaces, found only in this portion of the peritoneum, and passed on into the lymph-circulation. This observer demonstrated a normal intraperitoneal current capable of carrying fluids and small bodies to the diaphragm, and this, too, irrespective of position although gravity has a marked influence on the current. It also has been shown that the leucocyte is the principal bearer of foreign particles along the highway just described.

Another fact pertinent to the question is that the leucocytes and other factors producing this intraperitoneal current bear off pathogenic bacteria along this wonderful highway as readily as they carry innocuous substances, provided the enemy is not too numerous or too virulent. These facts open up to view the surprising capabilities of this highly vitalized membrane, and the abdominal surgeon should doff his hat to his ablest ally—the peritoneum.

*Objections to Drainage.*—Excluding cases of acute suppurative infection, such as appendicitis, pelvic abscess, that can be reached through the vagina, and wide-spread general peritonitis, drainage is objectionable for many reasons. Among them are the following: (1) It is deceptive. The writer has tried all kinds of drainage and found them unsatisfac-

tory. Drainage is not a guarantee against infection—the even-present menace to the patient; in fact, both gauze and the glass tube constitute an additional source of infection. (2) Cases not drained do better. The observation of any considerable number of cases will demonstrate this. A smaller percentage of the patients become infected; they suffer less nausea, less pain, require less morphine, have less tympanites; the bowels are more easily moved; the mortality is lower, and, in a word, they do better than cases that are drained. (3) Drainage is neither scientific nor workmanlike. I say this with an apology and with all due deference to those distinguished gentlemen present who drain most of their cases.

Take a case of large myoma or pus tubes with adhesions. To drain such a case is to say in substance to the patient, "We cannot open your abdomen, remove the abnormal growth, separate the unnatural adhesions, and close your abdomen without leaving your peritoneum in a condition that requires an open door." The "open-door" policy is all right for China, but not for the peritoneum. The presence of a drain is a tacit admission that we have left something undone that we ought to have done, or that we have done something that we ought not. Even in a case of suppurative appendicitis or pelvic abscess, if we could enucleate the sac in its entirety and without contaminating the surrounding tissues, just as we do a simple pus tube, there would be no need of drainage; but since this cannot be done, we must content ourselves with less complete work and leave Nature to finish the job. Joseph Price, who is known as an advocate of drainage in certain cases, is quoted as saying, "Drainage is an evidence of incomplete work." In a word, when we drain we do so because we cannot do better.

#### VERTIGO; A STOMACH LESION.<sup>1</sup>

BY MARTIN A. H. THELBERG, M.D.,

OF NEW YORK.

It may seem preposterous for one, who can lay no claim as a neurologist, to present a paper on a subject, gastric vertigo, about which there exists so many differences of opinion. As, however, one of the aims of our Association is to encourage discussion relative to the various subjects, that come to our notice, and as I have seen numerous cases of vertigo in which very painstaking diagnoses and subsequent successful treatment have been sufficient to dispel any doubt as to the etiology, I take pleasure in offering this paper in the hope by bringing forth the theories, experiences and criticisms of my confrères.

<sup>1</sup> Read before the Alumni Association of the City Hospital, November 14, 1900.

Under the symptomatology of vertigo is included not only the "turning around" that the word *-vertere* signifies, but also the various symptoms, familiar to us all since childhood, coincident with turning. The vertigo proper may indeed be of many forms and varying in degree. It may be *scotodynia*, where the sight is obscured and the patient falls from a complete loss of equilibrium and usually also of consciousness, or *gyroza*, when either the patient, or things about him seem to revolve and where the sense of equilibrium is more or less affected. In other instances the floor, or pavement, seems to rise, or sink, or a giddy, dizzy "lightheadedness" is experienced with darkness and occasional sparks, or flashes of light before the eyes, causing the patient to grasp for support for fear of falling. Usually this sensation is of short duration, but at other times it is either frequently recurring, or else more or less persistent, so that, even while lying in bed, a sensation of sinking, revolving or rocking is experienced, which is increased by the least movement of the head. These patients in my experience, at least, have proven the most intractable to treatment; as the psychological state, with fear of renewed attacks, is far worse than the vertigo itself and is one of the most potent etiological factors for renewed attacks. Another familiar example of the influence of fear upon the equilibrium is the dizziness, or actual vertigo of some people on looking down from some high place, as a tower or cliff.

In almost every instance of vertigo we will observe more or less pronounced nausea, or often even actual emesis. The nausea, if at all persistent, is indeed a most distressing symptom, especially as it is usually associated with cold sweats, fluttering of the heart, tinnitus, pyrosis, and worst of all, fear of approaching death from apoplexy, or cardiac disease. The heart indeed almost always acts very badly in these cases—it is weak, intermittent, at times to such an extreme that one cannot but share to some degree the patient's alarm. The patient feels confident that the end has come, often presses his hand over the precordia, proclaiming that the heart has stopped or ruptured, and afterward describes the sensation as one of extreme pain and compression of the heart. These symptoms are, however, relieved by emesis and eructation of gas and the patient, who has been cold and livid, breaks into a profuse perspiration. Usually more or less prostration and irregularity of heart action persist, according to the severity and number of attacks.

In glancing over the literature on the subject, one cannot help but feel perplexed at the differences of opinion regarding the etiology of what Trousseau so vividly describes in the *Clinique Médicale* as "vertigo e stomacho læso," and known amongst the Germans as "Magenschwindel." Before citing different

authors on this subject it may be well to define the author's idea of this affection as follows: "Vertigo in a person without any obtainable evidence of disease of the apparatus of equilibrium, or audition, or vision, or the brain, especially when the attack is traceable or subsequent to some dietetic indiscretion, or gastro-intestinal disorder and when curable by appropriate regimen and treatment directed toward the correction of such, digestive disturbances."

Gowers says, in his *Diseases of the Nervous System*, "I do not think that it is quite certain that there is such a thing as definite vertigo of purely gastric origin. Thirty years ago 80 per cent. of cases of giddiness were supposed to be due solely to the stomach. But we now know that in 90 per cent. of the cases a morbid state of the labyrinth is the real cause of the vertigo. It is possible, that in the small remainder, of apparently stomach giddiness, there is some other influence that is the real cause. e.g., a morbid state of the semi-circular canals exists which, causing no auditory symptoms, is not to be detected save by its effects."

S. Weir Mitchell, in *Pepper's System of Medicine*, says that "Trousseau certainly misled the profession as to the frequency of this (the gastric) form, but he did little more than represent the popular medical views, and we may now feel sure that a good many so-called gastric vertigoes are due to lithemia or to trouble of eye or ear. As a rule, such an attack need cause no uneasiness as to fatal result, but, unless the case be handled with skill, it is apt to repeat itself, until what I have called the *status vertiginosus* is created."

Ramskill, in *Reynolds-Hartshorne's System of Medicine*, says: "The most common and most tractable eccentric variety (of vertigo) arises from disorder of stomach, or of functional derangement of the liver and upper part of the alimentary canal. From its violence it suggests the idea of imminent danger. Chronic stomachal vertigo is of very common occurrence, and one often supposed to indicate the commencement of congestion, of organic disease of the brain, or of threatened apoplexy; and the treatment which has been adopted under such erroneous diagnosis has only served to render the vertigo permanent." Dana, in the *Text-book of Nervous Diseases*, says: "Stomachal vertigo is the name given to a very severe form of reflex vertigo. It occurs generally in persons whose stomachs are overloaded and whose digestion is paralyzed by its load. It is accompanied by loss of consciousness." Collins, in his work on *Treatment of Nervous Diseases*, says: "Such vertigo is much less common than is usually supposed." Flint, in his *Practice of Medicine*, says: "In a certain proportion of cases, the attacks appear to be incident to dyspepsia. This causation, however, is certainly not as



constant as it is regarded by Trousseau." Loomis, in *Practical Medicine*, says: "Gastric vertigo is the most common and is an almost invariable attendant on dyspepsia. It is often so severe and sudden in its onset that the patient thinks he is soon to have a stroke of paralysis. The mental state is often deplorable and true melancholia may ensue." Osler, in *Practice of Medicine*, says: "This variety of vertigo (gastric) is much less common than Trousseau's description would lead us to believe." Hemmeter, in *Diseases of the Stomach*, 1900, says: "This affection occurs in neuropathic patients with hyperacidity and is associated more often with gastric neurosis than others. It is a more frequent complication of hyperchylia than is generally known. Treatment of the fundamental gastric disease removes the vertigo, as a rule."

Einhorn, in *Diseases of the Intestine*, 1900, says: "Leube describes several cases of intestinal vertigo, due to pressure existing in the lower end of the bowel and caused by irritation by fecal matter or a large amount of gas, or even the examining finger, from which he reasons that the vertigo is reflexly from pressure upon the hemorrhoidal plexus of the sympathetic," and in his *Diseases of the Stomach*, says: "In some instances of chronic gastric catarrh there appears a dizzy feeling which is occasionally so severe that patient cannot occupy a standing position, but has to sit down or lie down." Ewald, in *Diseases of the Stomach*, says: "Trousseau deserves the credit of having first directed attention to the relation of those attacks of vertigo with chronic catarrhal gastritis."

Leube, in his *Ueber den Magenschwindel*, Ziemssen's *Handbuch d. spec. Path. and Therap.*, Vol. II., mentions that gastric vertigo may occur in some persons after the ingestion of certain foods.

As can be seen from these citations we have, indeed, some of our best observers at variance, and we must consequently rely exclusively upon our own conclusions, which, after all, is the only satisfactory way when we conscientiously study our cases and employ due logic in our diagnoses. Bearing in mind that vertigo undoubtedly can result from disease of the semicircular canals, cerebellum and nerves of Cyon, as well as from errors of refraction and the ocular muscles, and that, furthermore, polypi or disease of the external or middle ear or of the Eustachian tubes or the larynx may be the etiological factors as well as tumor or disease of the brain, epilepsy, neurasthenia or hysteria, we ought certainly to be able to diagnose the case by due care and thoroughness, without fear of contradiction.

In the diagnosis of these cases it is naturally of the utmost importance to first and foremost obtain as complete a history as possible, including previous attacks, possible, ascribable, immediate cause, existence of disease of ear, eye, nose or throat, brain, heart or digestive

tract. By following this with otological examination and tuning-fork test, Menière's disease is practically excluded. Simple tests as to the condition of the ocular muscles, accommodation and vision, followed by Pulitzer's test, rhinological and throat examination, neurological examination as to knee-jerk, ataxic symptoms, sensation and motion, will by exclusion practically leave digestive disturbances as the primary cause. In confirmation of this the stomach will in the majority of cases be found considerably distended, tympanites, pyrosis, colic and distress after eating will usually be complained of, as well as constipation or looseness of the bowels. The especial attack will generally be ascribed to something eaten. One of my patients had a very severe attack after eating broiled lobster, another after a table d'hôte dinner, still another had vertigo of the worst kind after drinking a glassful of claret or sauterie, although other wines caused no distress. Ice-cream, liberal indulgence in coffee and cakes (in German fashion), plum-pudding, etc., may be enumerated as other causes.

The diagnoses given by previous medical attendants have in the writer's cases varied between apoplexy and cardiac disease. In not less than two cases in my immediate neighborhood were the patients and their families living in constant dread of sudden death, as other physicians had pronounced previous attacks as slight strokes.

In regard to the mechanism of *vertigo e stomacho* the writer is of the opinion that this symptom is brought about by either, or all of three causes, to wit: (1) Reflexly through direct irritation of the gastric branches of the pneumogastric and thence by the lower cervical ganglion to the vasomotor nerves of the vertebral artery, which supplies the internal ear. (2) By toxemia from amulon, and other ptomaines, nicotine, alcohol, reabsorption of bile, the toxins of the infectious diseases, etc., etc. (3) By direct pressure upon the heart through distention of the stomach and intestines by gases, resulting principally from so-called amylaceous indigestion and hyperchylis.

Although it has not been the writer's good fortune to meet with a single case of purely Menière's disease, still I do not for a moment doubt or dispute that disease of the semicircular canals, nerve of Cyon, or the apparatus of equilibrium generally, will cause vertigo. The writer's contention is only that actual disease of this kind is of far less frequency than irritation of the centers controlling equilibration, and, from the successful treatment of over 20 well-marked cases of this kind (besides several less typical ones), I feel convinced that gastro-intestinal disorders supply the irritant in the majority of instances by either or all of the afore-named three ways.

The treatment that in the writer's expe-

rience has proven curative in the most alarming, as well as recurring cases, is the correction of the gastro-intestinal disorder. This has in most of my cases been accomplished by the administration of a glass or two of hot water half an hour before meals, with some sodium bicarbonate before breakfast, and from three to four grains of diastase with each meal, preferably in combination with  $\frac{1}{20}$  to  $\frac{1}{10}$  gr. strychnine and in some instances a pepsin ferment. The patient should also be instructed as to the theories and importance of thorough mastication and appropriate diet. As the result of previous experiences, it has also become the writer's routine to explain, in as concise and plain terms as practicable, to the patient the existing condition, thereby preventing unnecessary anxiety, as well as further attacks.

My conviction, gained from the treatment of a good many cases of this kind, is, that the *status vertiginosus* as a sequence of gastric vertigo only proves the lack of knowledge of the chemistry and physiology of digestion, or of inappropriate treatment, on part of the attending physician.

205 West 105th Street.

#### AN INTERESTING CASE OF SPLENIC ANEMIA.<sup>1</sup>

#### AN INTERESTING CASE OF SPLENIC ANEMIA.\*

BY HERBERT MAXON KING,  
OF GRAND RAPIDS, MICH.

WITHIN the last year or two considerable attention has been given to the pathology and clinical history of a condition characterized by a marked enlargement of the spleen associated with a progressive anemia, usually terminating in death. Investigation to the present time has seemed to identify in this condition a pathological entity which, for convenience and to avoid as far as possible annoying confusion in nomenclature, is generally understood by the term "splenic anemia." Among several other terms used to designate the same disease "splenic pseudo-leucemia" and "*spleno-megalia primitiva*" are perhaps most common; both, however, fail to convey a clearer meaning, and are even more ambiguous, while the latter has the additional disadvantage of being recently employed to designate a condition quite distinct, pathologically, from that which is usually understood by splenic anemia.

In November, 1899, B. W. Sippy published in the *American Journal of Medical Sciences* a critical summary of the literature on splenic anemia; and in the following January an interesting article on the subject by Osler appeared in the same journal. Sippy found the number of cases, clinically recognized, up to the time of his writing, not to exceed twenty-five. A number of cases have been reported since the appearance of his paper, but the total is still comparatively small.

<sup>1</sup>Read before the Academy of Medicine of Grand Rapids, Mich., October 16, 1900.

David Bovaird, Jr., in the *American Journal of Medical Sciences*, October, 1900, gives a very interesting report of two cases similar in many respects to splenic anemia, but which have pathological distinctions which, he considers, place them in a group by themselves hitherto unrecognized and which he terms "primary splenomegaly."

The following case, seen through the courtesy of Dr. J. A. McColl, is clinically one of splenic anemia, and, while fairly classical in essential features, it differs sufficiently in minor points to be of considerable interest. It will be seen that the blood-changes which we found in our case are far more marked than those generally reported and would in the absence of the enormous splenic hypertrophy be sufficient to place it within the category of the primary anemias.

Unfortunately, we were unable to secure autopsy in this case, indeed the patient left the hospital and refused to see her physicians several months before her death, and consequently this report is of necessity incomplete, being limited to the clinical aspects of the case alone.



Photograph showing area of cardiac dullness, apex beat, outline of splenic border and crest of ilium.

In October, 1899, Dr. J. A. McColl kindly asked me to see the subject of this report, a patient who had but lately before come under his observation. The case was found, upon superficial examination, to be of such interest that the patient was admitted to one of the free beds at Butterworth Hospital, where in due course the following history was obtained:

A woman, forty years of age; born in Yorkshire, England, where she lived until adult life; she has since lived in Michigan. She could give no account of her father. Her mother died at the age of fifty-eight years of an "obscure trouble in the left side" (an interesting fact in view of the present case). She has one living sister, older than herself and in good health, and has never lost either brother or sister. At nine years of age patient began work in a factory in Yorkshire, where she remained until her marriage at the age



of seventeen. Menstruation was established at fifteen years, has always been and still is regular, lasting three or four days with some dysmenorrhea. At eighteen years she gave birth to a healthy child, who at time of this examination is living and in good health. A second child, who died soon after birth, was born in her twenty-third year. Her husband died from an accident at forty years of age, and in her thirty-seventh year she married a man much older than herself with whom she is at this time living. She has never been in a malarial district and gives no suggestion of syphilitic taint. She is evidently a woman of ordinary intellectual capacity, but is profoundly ignorant.

She states that until July, 1899, she was always perfectly well; at that time she was suffering from an obstinate constipation for relief of which she took two pills from a sample which had been left at her door as an advertisement. She dates her illness from this occurrence, following which she had a severe diarrhea, passing at times considerable blood, which persisted for three weeks. She then partly recovered and undertook to proceed with her household duties. Following a day's hard work she had a relapse, from which she has never recovered and chiefly for which she consulted a physician. Her more intimate friends say that for a number of years she has had a "peculiar, pale yellow color." She had probably lost in weight, but at the time of examination and subsequently as long as she was under observation, was not emaciated. She complains of gripping pain in the abdomen, somewhat paroxysmal, attended with diarrhea and extreme prostration.

**Examination.**—As above stated there is little or no emaciation. The face wears an anxious expression. There is a slight puffiness under the eyes and a perceptible edema of the lower extremities. The skin presents a peculiar, yellowish pallor which characterizes primary blood-lesions. The abdomen is not prominent. The vessels in the neck pulsate markedly. The conjunctivæ are very pale and have a fatty appearance. The mucous membranes are very pale and the teeth badly decayed. There is slight dulness and faint wheezing râles at apex of the left lung. The apex beat is  $3\frac{1}{2}$  inches to left of median line in fourth interspace. The area of cardiac dulness is not enlarged. There is a noticeable murmur, both systolic and diastolic in rhythm, beginning before, and persisting after, the second sound, with a maximum intensity at the second left interspace and sternum, diffused over the whole superficial heart area, but not heard behind or along the vessels of neck. The mobility of the left chest is restricted with upward displacement of the viscera and downward excursion of left diaphragm limited to level of fifth rib.

Palpation of the abdomen does not elicit pain. It is slightly tympanitic to percussion on the right side; the left lobe of liver is palpable, but the organ as a whole is not perceptibly altered in size, shape or feel. The kidneys are not palpable. The spleen, enormously enlarged (see photograph), retains, however, the contour of a spleen even to the notch in anterior border. It fills nearly the whole

left half of the abdomen, the anterior lower border falling below the crest of ilium in ordinary posture, while the right anterior border is palpable to the median line. Palpation of the mass does not elicit pain. The pulse is full, soft, rather "bounding" in character, and 104; temperature,  $100.2^{\circ}$  F.; respiration not markedly disturbed. An occasional cough is productive of slight mucous expectoration, containing no tubercle bacilli. The urine is of low specific gravity; deficient in the salts and fails to respond to the tests for albumen, peptones, sugar, bile and indican, while the sediment contains no formed elements of significance.

The peripheral blood was examined October 6th and again October 12th. The splenic blood obtained by aspiration was studied qualitatively a day or two subsequently and found to differ in no important feature from the peripheral blood.

Following is the report of the blood examinations made October 6, 1899:

**Quantitative.**—Red corpuscles, 950,000; leucocytes, 780; hemoglobin, 15 (Von Fleischl); color index, .83.

**Differential Computation of Leucocytes.**—Small lymphocytes, 22 per cent.; large lymphocytes, 5 per cent.; polymorphonuclear neutrophils, 55 per cent.; eosinophiles, 0; transitional forms, 3 per cent.; myelocytes, 15 per cent.

It will be seen that with the exception of the myelocytes, a normal relation exists between the varieties, the greatly reduced total number of leucocytes per cubic millimeter is not unusual in profound primary anemias.

The large percentage of myelocytes if persistent would point to a myelogenous leucemia notwithstanding the low total of leucocytes, but subsequent examinations failed to sustain this large percentage for which I cannot satisfactorily account at this time.

Qualitatively, the blood evidenced destructive changes of a character more profound than I have ever remarked in any condition except that of pernicious anemia.

There was marked poikilocytosis. Sippy states that in splenic anemia "there is no marked alteration in the form and size of the red corpuscles. Poikilocytosis has not been recorded. Nucleated red corpuscles have not been observed."

In our case there was not only marked poikilocytosis, but also polychromatophilia, macro- and microcytosis, while a little more than two nucleated red corpuscles were counted to every 100 leucocytes; these were mostly megaloblasts, some of the nuclei of which presented beautiful kariokinetic figures.

On October 12th blood examination resulted as follows:

**Quantitative.**—Red corpuscles, 875,000; leucocytes, 3,150; hemoglobin, 15 (Von Fleischl); color index, .86.

**Differential Computation of Leucocytes.**—Small lymphocytes,  $22\frac{1}{2}$  per cent.; large lymphocytes, 8 per cent.; polymorphonuclear neutrophils, 61 per cent.; eosinophiles, 0; transitional forms,  $4\frac{1}{2}$  per cent.; myelocytes, 4 per cent.

Qualitatively the changes in size, shape and color reaction were identical with those of the former examination.

In counting 200 leucocytes there were noted nucleated red corpuscles as follows: Normoblasts, 2; megaloblasts, 13; and other anomalous forms, 5. As above stated the splenic blood differed in no essential feature from the peripheral blood.

A few days following the last blood examination the patient left the hospital and was not seen again by either Dr. McColl or myself. The case terminated fatally the following December and autopsy was unobtainable.

The points of interest in the case rest chiefly upon its evident close relation to splenic leucemia on the one hand and pernicious primary anemia on the other; but our study of the blood, with that of the clinical history of the case in general, convinces us that it belongs to the group of obscure toxemias most conveniently included under the head of splenic anemia.

### MEDICAL PROGRESS.

**Suprarenal Gland Extract and Epistaxis.**—LEWIS S. SOMERS (*Phila. Med. Jour.*, March 2, 1901) discusses the dangers of sepsis from the use of the extract of suprarenal gland in epistaxis as the drug is usually employed. There is no question but that the drug possesses qualifications rendering it superior as a local hemostatic and vasomotor constrictor to all other remedies. The writer has found that by adding one grain of pure carbolic acid to a dram of sterile water containing ten grains of adrenal extract and then filtering through paper, a solution is obtained that retains the maximum efficiency and is both sterile and permanent. He has used this formula for some time and has always found it reliable. This solution is improved, however, by adding to it a sufficient quantity of eucaïn to make a one-, two-, or three-per-cent. solution. By this addition an anesthetic action is obtained as well as the full vasoconstrictor action of the extract of suprarenal gland. The method of using this solution in an acute case is to place a pledget of cotton saturated with it over the point of bleeding, if possible, for a few minutes, then thoroughly spray the nostril with the same solution, and, finally, to cleanse the parts with a simple alkaline solution. In a chronic or persistent case it may be necessary to place a pledget of cotton saturated with the adrenal solution loosely in the nostril every night, or once or twice a day, or to drop a few drops of the solution in the nostril twice a day. The writer reports a few cases illustrating the efficiency of this remedy and the different ways of using it.

**Paralysis Agitans.**—Most forms of tremor can, according to J. M. TAYLOR (*Jour. of Nervous and Mental Dis.*, Mch., 1901), be benefited

by regulated and systematized movements such as shall reestablish the greatest elasticity in the contracted tissues. Passive extensions and flexions should be followed by active similar motions. The most important movements to overcome the milder forms of tremor, as the senile form, are slow, full, forcible extensions. At the same time the respiratory capacity should be constantly exercised by lung gymnastics.

**Brain Abscess and Empyema.**—Brain abscess from pulmonary disease is not very common. While an abscess may be caused by disease of either lung or pleura, it more usually results from the former. T. A. CLAYTON (*Phila. Med. Jour.*, March 2, 1901) reports the case of a man twenty-two years of age, who, after an attack of malaria contracted in Cuba, had a bad empyema. After an illness of two months, during which time paracentesis was performed twice and a resection of part of the seventh rib was done, and later a resection of portions of the fifth, sixth and seventh ribs, the patient recovered from the empyema. But about three weeks later the patient returned complaining of having had a chill, with headache, high fever, nausea, and profuse sweating. There was a second chill with the accompanying symptoms, and since then he had had an intense pain in the head, extending all over the cranium and down the back of the neck. Whenever food was taken, vomiting occurred. He was constipated. Temperature was 103.2° F., pulse 120, respirations 24. His face was flushed and had an anxious expression upon it. His tongue was clean. The usual remedies for headache failed to relieve. It was thought that his condition was due to a reaccumulation of pus in his chest. His headache continued and the nausea was continuous. He became delirious, refused nourishment, and sweated profusely. On the fifth day his temperature rose to 104.4° F., there was for the first time rigidity of the neck, and he died. During this attack there was no strabismus, no paralysis, no inequality of the pupils. The autopsy showed multiple abscess of the brain, a very small area of basal meningitis, parenchymatous nephritis and beginning degenerative change in the liver-cells. From the findings of the autopsy Clayton thinks that there is no reason to doubt that the abscesses in the brain were metastatic from the old empyemic fistula. He is unable to explain why the abscesses should form in the white matter of the brain and not in the spleen, liver, kidneys, etc. The writer cites 58 cases, in literature, of brain abscess resulting from primary lung disease, showing that empyema is only second to bronchiectasis as a cause.

**Cysts of Ovarian Remnants.**—H. EHRENFEST (*Centralbl. f. Gyn.*, Feb. 23, 1901) says that the question is still open whether or not the patient is served or damaged by leaving behind ovarian tissue in certain operations.



Although the formation of cysts in these stumps is not any more frequent than that of carcinoma in the stump of the cervix after supravaginal amputation, it is common enough in literature to render the consideration of total ablation of the ovary pertinent. A safe principle will be that, when an ovary is cystic, or is part of a diseased appendage or lies in a diseased peritoneal pouch, a complete extirpation will be wise.

**Sensitiveness of Abdominal Cavity.**—K. G. LENNANDER (*Centralbl. f. Chir.*, Feb. 23, 1901) has been making observations on the nervous supply of the abdominal parietes, peritoneal investment and viscera with special reference to its bearing on operations on the organs and wall and local and general anesthesia for them. He arrives at the following conclusions: (1) The peritoneum parietale is rich in the nerves of pain sense; (2) the peritoneum viscerale, gastric and enteric canal, gall-bladder, kidneys and liver are bereft of nerves for the senses of pain, touch, heat and cold, so far as his present observations have indicated. As a very valuable means of anesthesia and a substitute for either pure local or pure general anesthesia, he has found combination of both a very valuable procedure. He has found that an application of local anesthesia by the method of Schleich and just enough chloroform or ether to stop vomiting will permit any procedure to be carried on.

**General Paresis and Brain Tumor.**—WHARTON SINKLER (*Phil. Med. Jour.*, March 9, 1901) remarks upon the frequency with which patients having general paresis have symptoms which simulate localized disease of the brain, such as brain tumor, and says that the convulsions which often occur as a late symptom of general paresis frequently begin in or may be confined to one arm. These convulsive seizures sometimes are almost typically Jacksonian in character. As the paresis progresses these seizures may involve the whole side of the body and there may be unconsciousness for a variable length of time. Then, too, after a convulsion, paralysis may be more or less complete in the arm or whole side for several days. When the right side of the body is the one affected aphasia may be present, either transient or more or less permanent. The differentiation between general paresis and brain tumor, when the symptoms of the former condition are not marked is rather difficult. This is especially so when the mental symptoms of paresis are not pronounced. The writer reports in detail two cases illustrating the similarity between the two conditions, general paresis and tumor or other gross lesion of the brain.

**Appendicitis Simulating Strangulated Hernia.**—J. B. PIKE (*Lancet*, Feb. 23, 1901) reports, on account of its rarity and highly instructive diagnostic value, a case of chronic

appendical abscess simulating strangulated inguinal hernia. The well-nourished, thirty-five-year-old man was seen first by him in consultation Jan. 7, 1901; had had a severe attack of abdominal pain, nausea and vomiting, as a recurrence of several previous mild attacks of the same kind and as a sequela noticed six months later a right inguinal swelling disappearing when lying down except when turned on the right side. Jan. 5th, a violent recurrent attack appeared; on the 6th, with obstruction and stercoraceous vomiting; on the 7th an enema produced a passage of gas, fluid feces and scybala. That night in the dorsal decubitus position he showed slight general abdominal distention and tenderness, fulness in the right iliac region, an oblong mass in the inguinal canal free from impulse on coughing, and obliteration of the external abdominal ring. Under ether the ring could be outlined, but the character of the canal contents could not. The patient died before any operation could be performed. At the autopsy were found an old appendical abscess with a prolongation into the inguinal canal, a perforated appendix, a perforation in the abscess wall and peritonitis. Whether any one could have made the diagnosis or will make it under such data is doubtful, but the case is extremely instructive as showing a remarkable condition.

**Hernia in the Aged.**—C. S. BREBNER (*British Med. Jour.*, Feb. 23, 1901) reports for Mr. Plummer a case of strangulated oblique hernia in an eighty-year-old man. The hernia was of twenty years' standing, had always been readily reducible until the morning of his admission to the Edinburgh Royal Infirmary, on December 22, 1900. No truss had been worn at any time. On admission he presented great feebleness of old age, marked muscular tremors, very like those of paralysis agitans, a large scrotal right oblique inguinal hernia, hard, tense and tender, absolutely irreducible, unaffected by taxis and enemata. Defecation had last occurred December 21, 1900. His skin was prepared for operation and ice applied locally. Under chloroform part of the rupture returned spontaneously, but the balance persisted. Ball's operation for radical cure was done and the bowel, found to be universally healthy, was all returned into the abdomen. Excepting a rise of temperature during the first three days and restlessness the course was straightforward and primary union resulted. The patient was discharged on the 8th of January in excellent local and general condition. Mr. Plummer employs Ball's operation in the aged on account of its rapidity and he usually does not cut the ligature about the sac short, but passes an end through each pillar of the external ring, thus checking any untwisting of the sac and the need of a deep ligature as recommended by Ball.

**Normal Salt for Gonorrhea.**—Freedom from complications is still considered of far more importance than short duration, the aborted cases often retaining the attenuated germ in the tissues ready to take on virulent growth at a favorable opportunity. The gonococcus is a frail germ not capable of growing at above 100.4°F., and having its virulence and reproductive power destroyed at 103°F. Therefore C. E. WOODRUFF (*Med. Rec.*, Mch. 16, 1901) argues that if hot solutions can be introduced into the urethra without injuring the tissues, the disease will be cured. But as plain water is irritating to all mucous and serous membranes, he uses normal salt solution. Irrigations of this every one or two hours remove the poisonous toxins of the gonococcus, destroy the virulence of the germ, and soothe the urethra. Ninety-eight cases treated show cure in from two days to four weeks, but usually in ten to fourteen days.

#### Formaldehyd versus Sulphur Fumigation.

—To test the comparative value of sulphur and formaldehyd, R. G. SCHNEE (*Cleveland Med. Gaz.*, Mch., 1901) used a room with 1,003 cubic feet space, containing carpet, bedding and furniture. The windows and doors were sealed moderately well, but cracks in plaster and baseboard were left alone. Twenty-four-hour bouillon cultures of typhoid, diphtheria and staphylococcus aureus germs, and five-day cultures of anthrax rich in spores were used. Cover-glass smears were dried and wrapped in one layer of sterile lens paper, and others in two layers of cotton comforter. Cotton threads were soaked in the cultures, dried, and placed in short open tubes of large caliber and similar threads in one layer of cotton comforter. Twenty-four-hour cultures on Loeffler's blood-serum were exposed with cotton plugs removed. Duplicates were exposed in all cases, and control cultures kept. Two experiments were made with 3 and 6 lbs. respectively of sulphur in a dry atmosphere, and of the same with the objects moistened with sterile water. The room was not opened for sixteen hours. With formaldehyd, Parke, Davis & Co.'s generator with 150 c.c. formalin were used dry and moist, and the test was also made with Moffat's generator, dry and moist. Sulphur in 6 lb. quantities was nearly as efficient as dry formaldehyd, but the latter when moist was more effective. The objects wrapped in cotton comforters were disinfected by neither. When large rooms are to be fumigated, paraform, 60 grains, may be dissolved in 150 c.c. formalin containing borax, this amount disinfecting 2,000 cubic feet. A good enough apparatus consists of a 1,000 c.c. Bohemian glass flask with a thistle-mouth funnel reaching nearly to the bottom and a conducting tube to carry the vapor through the key-hole. This, heated with a Bunsen lamp, is nearly as effective as an expensive apparatus. All cracks in the room should be stuffed up to prevent leakage.

## THERAPEUTIC HINTS.

**Impetigo in Children.**—Until the crusts have fallen, G. CARRIÈRE employs gauze compresses saturated in a decoction of walnut leaves. He then applies peroxide-of-hydrogen compresses, covered with rubber tissue, renewed once a day. He also gives small doses of calomel internally.—*Le Nord Médical*.

**Acute Serofibrinous Pleurisy.**—For small effusions, C. E. NAMMACK (*Med. Rec.*, Mch. 9, 1901) applies guaiacol or iodine, gives magnesium sulphate, limits fluids ingested, and has patient take much table salt. He advises tapping if life is directly threatened or endangered by asphyxia from compression, or by cardiac weakness, or when the fluid has risen to the third front interspace, or in lesser effusions when spontaneous absorption is delayed for more than a few days. The underlying cause must also be treated.

**Tympanites in Children.**—FREYBERGER administers three times a day for two days a teaspoonful of

℞ Sod. sulphocarb. 0.25-0.50 (gr. iv-viii)  
Syr. aurant cort. . . . . 5.0 (3i¼)  
Aq. menth. pip. . . . . 25.0 (3vi¼)

—*Jour. de méd. de Paris*, Feb. 17, 1901.

**Stomach in Heart-Disease.**—CARRIÈRE finds digitalis the most certain, but if there is flatulency he precedes a meal with 5i of

℞ Tinct. nux vom. . . . gm. 5.0 (℥lxxv)  
Tinct. gentian. . . . . 10.0 (3iiss)  
Tinct. rhei aromat.  
Aq. lauro-cerasi. aa. 20.0 (3v)  
Aq. menth. viridis ad. 100.0 (3iii-3iiss)

If the patient eats well have him take during the meal a tablespoonful of

℞ Ac. hydrochlor. . . . gm. 3.0 (℥xlvi)  
Strych. sulph. . . . . 0.5 (gr. 3/4)  
Aque. . . . . 300.0 (3x)

or Coutaret's formula:

Ac. sulphuric. . . . gm. 2.40 (℥xxxvi)  
Ac. nitric. . . . . 0.80 (℥xii)  
Alcohol . . . . . 18.0 (3ivss)

Allow to stand forty-eight hours and add:

Syrs. limonis. . . . gm. 100.0 (3iii 3iiss)  
Aque. . . . . 150.0 (3v)

The food must be light, the patient quiet during digestion. For the attacks of gastric distress give a teaspoonful of

℞ Aq. chloroformi. . . . gm. 60.0 (3ii)  
Cocainæ hydrochlor. 0.20 (gr. iii)  
Aq. aurant flor. . . . . 20.0 (3v)  
Aquam. . . . . 40.0 (3x)

Uncontrollable vomiting may be relieved by adding to each feeding of milk one to four drops of

℞ PicROTOXIN . . . . . gm. 0.12 (gr. ii)  
Alcohol, q. s. to dissolve  
Morph hydrochlor. 0.06 (gr. i)  
Atrop. sulph. . . . . 0.01 (gr. 1/4)  
Aq. lauro-cerasi. . . . 12.0 (3iii)

—*Jour. de méd. de Paris*, Feb., 1901.



# THE MEDICAL NEWS.

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SATURDAY, MARCH 23, 1901.

## SURGICAL PROPHYLAXIS OF NEPHRITIS.

WE present in this issue of the MEDICAL NEWS a lengthy abstract of the address of Prof. Reginald Harrison (London) to the students of Cornell Medical College on Retrospects and Prospects in Genito-Urinary Surgery. One feature of the prospect in the surgery of the urinary tract Mr. Harrison touched on but lightly, perhaps because its initiation was due to his own labors. It is the question of the significance of kidney tension in the production of albuminuria and even of suppression of urine and the problem of operative relief for the condition.

Kidney diseases remain one of the therapeutic opprobria of scientific medicine. We have learned to diagnose the various forms of nephritis, but we are utterly unable to influence their course. Of late years we have come to realize more and more our helplessness in treating this class of patients, owing to the wear and tear of the strenuous life, and the greater addiction of men generally to spirituous liquors and irritating concentrated foods has become far more frequent than it was. It is universally conceded now that the acute nephritis, which frequently follows scarlet fever and other infectious diseases, not rarely is the starting-point of the

chronic nephritis which so often proves fatal in adult life. Even with the most careful prophylaxis, however, these acute nephritides develop in certain patients. At times they run so insidious a course as to be unsuspected. In others they produce very marked symptoms.

Dr. Harrison proposes to interfere surgically in some of these severe cases. He considers that the effort to eliminate toxins present in the circulation leads to overcongestion of the kidney. The irritating nature of the toxic substances in solution in the blood provokes additional congestion by interfering with the vasomotor apparatus of the kidney. The delicate secreting material of the kidney is surrounded by an absolutely unyielding fibrous capsule. In addition to this there are partitions of fibrous tissue extending down to the hilum of the organ that prevent compensatory dilatation of congested portions. The result of this continued congestion is permanent injury of the secreting mechanism of the kidney. This state of overcongestion is not merely imaginary nor theoretical. After death from scarlatinal nephritis it is usual on autopsy to find the kidney intensely congested, the capsule tense and stretched, the whole organ of a shining dark color and overfilled with blood.

The clinical feature of these cases is the suppression of urine that leads to the fatal termination. Oliguria gradually progresses to absolute anuria and then so-called uremia develops. This urinary suppression Dr. Harrison attributes to what he calls renal glaucoma, that is, to a state of intrarenal pressure that inhibits function by interfering with the normal action and nutrition of delicate cellular tissues. The analogous condition in the eye from intra-ocular tension is well known, its sad results are now recognized and surgical measures for its relief are considered the only justifiable treatment. Mr. Harrison's suggestive name has been well chosen and he proposes to relieve the corresponding condition in the kidney by an incision that will relieve the intrarenal pressure.

He has had experience himself in several cases. In the first case it was expected that suppuration would be found in or around the kidney. The patient had had scarlet fever some three weeks before, and scanty albuminous urine with great lumbar pain were the permanent symptoms. When the kidney was opened a gush of blood relieved the pressure. The pain ceased at once. The urine gradually became more plentiful and the albumin disap-

peared. Until the improvement of symptoms took place it was thought that under mistaken diagnosis a needless operation had been done. Dr. Harrison has had some experience also in cases of persistent chronic congestion in which disorganization of the intricate secreting mechanism of the kidney was prevented by incision. Subsequent drainage prevented the recurrence of the congestion until the vasomotor mechanism of the kidney regained its control.

Dr. Harrison suggested in an article in the *Lancet* some time ago that "the operation should be reserved for cases in which there is evidence that the recuperative power of the kidneys suffering from nephritis is overweighted. When after an attack of this kind, the albumin is not disappearing from the urine and there is a prospect, unless some relief is found, of permanently damaged kidneys resulting, then a trial of this expedient (exploration through a small transverse lumbar incision with division of the kidney capsule where deemed advisable) may be undertaken without adding to the gravity of the circumstances." As these cases are absolutely unamenable to medical treatment and as even when an immediate fatal termination does not follow, subsequent chronic nephritis is not unusual. Dr. Harrison's suggestion may prove of great value in hitherto discouraging and almost hopeless conditions.

The subject is well worthy of the most careful study and would seem to justify surgical boldness that may lead to precious results in a field where present-day medicine feels itself almost more than anywhere else at a loss.

#### PHYSICIANS' ORPHANS' HOME.

No man gives so much gratuitous work to the world as the physician, and no man leaves so little behind him, for the reason that with his death his income stops abruptly. There is no business that can be conducted in his children's interest, no pension to be paid to his widow. And to make the outlook more hazardous it is a well-known fact that the physician's life is ten years shorter than the lawyer's, and fifteen years shorter than the minister's. Infectious diseases caught from his patients, pneumonias from midnight calls, and overwork reduce the average life of a doctor to forty-five years. For few indeed is there "slipped ease."

In order to increase his income he is generally

obliged to live up to it, not being able to keep his home life apart from his profession, and the very spirit that makes him give all his time and energy to others precludes a selfish saving for himself. The consequence is that the accident of death often leaves a family of children, of fine intellectual heredity and good breeding with almost nothing for their support or education.

A Physicians' Orphans' Home for the children of deceased physicians appeals to us as a most wise and right object of charity. An organization has been effected to establish and maintain such a home for the care and education of the helpless little ones of brother physicians, by endowments and subscriptions from the profession, under whose management and control it will be.

The committee that has had the location for such a home in view has considered sites in Ashville, N. C., Louisville, Ky., Colorado Springs, Col., Canton, Ohio, and Lookout Mountain, Tenn., but has finally settled on Bristol, Tenn. and Va., as the place where the most suitable site may be obtained; and has secured an option on a certain hotel property, apparently well situated in wooded grounds. Thirty-five thousand dollars still remains to be raised in order to put the orphanage in operation; and to obtain this, as well as funds for its maintenance, a personal plea is being sent to every physician in the United States to assist the enterprise.

The object cannot fail to arouse the interest of every physician who is a father, if only out of pity for the child of his brother who may be left destitute. Not only physicians, but patients whom they may interest, will recognize that it is a movement of great economic value, as it will tend to develop some of the best material of a coming generation, and that it is a fitting tribute to the unselfishness of the profession.

#### MEDICINE, POETRY AND PROPHECY.

MR. Stephen Philips is acknowledged to be the living English poet whose works deserve the most serious attention. No less than five important magazines have had articles on his work during the last month or two. The opening article in the January number of the *English Nineteenth Century and After* is a poem of prophecy by him reminiscent of the accomplishments of the century just past and glimpsing the work that the new one will do. It is interesting to note how much that the poet finds of real advance in the past is medical and how much of progress foretold must come from the profession whose un-



selfish work the public has, as a rule, misunderstood and at best is only just beginning to appreciate.

Speaking with the voice of the Lord in cadenced verse of striking dignity, the poet finds first to record the surcease from pain that Nineteenth Century medical progress has brought.

"In the years that have been I have made an oblivion for anguish,

And stillness in place of a cry.

I have lain around the knife as a numbness, on nerves as an ether.

I am He that hath healed, saith the Lord.

I have fallen as a veil upon woe, as a slumber on sorrow,

As a blank on the reeling brain.

In the years that have been I have shown me a smoother of pillows,

A closer of fixed eyes."

This is the main part of true achievement for man in the past. The future is radiant with progress that will still further lessen the weight of human suffering.

"In the years that shall be I will come as an healer to cities

And as dew to a parched land.

And the city of furnaces shall fade, the city of wheels, The city of the white faces,

The girding city, the city of gongs, and of hammers, Whose floor is of embers and ashes."

How tempting is the poet's vision of a city life that shall care first for the health of its people and thus for their true happiness! When the strenuous life shall be as if it were not, because its deep, wasteful, unwholesomeness shall be far from the common life of the people. Then the poet rises to the vision of further achievement when even the grave shall lose its victory and death its sting.

"And the dead whom ye loved ye shall walk with and speak with the lost

The delusion of death shall pass,

The delusion of wounded earth, the apparent withdrawal,

The snare of sightlessness vanish.

Ye shall shed your bodies and upward shall flutter to freedom.

For a moment consent to the ground."

So shall time bring mead of progress, thinks the poet, until pain and death are no more.

"At the wheels of my chariot pacing like alien captives, Anguish and Time and Death."

The poet's ecstatic vision is too fair ever to be realized here below, but it is something for medical men to contemplate in the midst of sordid, unsatisfying realities that the highest ideals to which the poetic imagination can rise are inti-

mately connected with the work of the profession to which they belong. It is provocative of a thrill of encouraging self-satisfaction at the beginning of the new century to realize that the daily round of little duties is a constant factor in the loftiest purpose there is—the lifting of humanity out of the pain and misery that have been its lot.

## ECHOES AND NEWS.

### NEW YORK.

**Middleton Goldsmith Lecture.**—This annual lecture under the auspices of the New York Pathological Society, will be delivered at the New York Academy of Medicine, No. 17 West Forty-third street, on Tuesday evening, March 26th, at 8.30 o'clock, by Prof. Charles Sedgwick Minot, M.D., Professor of Histology and Human Embryology, Harvard Medical School. Subject: "The Embryological Basis of Pathology." All members of the medical profession are invited to attend.

**New York Academy of Medicine.**—Section on Laryngology and Rhinology, Wednesday, March 27th, Dr. W. F. Chappell will present a paper on "Tuberculosis of the Tongue"; Dr. C. G. Coakley on "Tuberculosis of the Tonsils, Accompanying Tuberculous Glands of the Neck"; Dr. Emil Mayer will report on his "Clinical Experienced with Adrenalin."

The Section on Obstetrics and Gynecology will meet Thursday, March 28th. Dr. R. Waldo will read a paper on "Sactosalpinx Hemorrhagica" and Dr. A. F. Currier one on "Early Diagnosis of Ectopic Gestation."

**Resignation of Dr. Delafield.**—At the February meeting of the Board of Trustees of the School of Medicine of Columbia University the resignation of Dr. Francis Delafield as professor of the practice of medicine was accepted, to take effect June 30, 1901. Dr. Delafield had contemplated this step for some time. His connection with the school has been a long and close one. After his graduation in 1863 he was appointed clinical assistant to Dr. Alonzo Clark, the professor of pathology and clinical medicine; in 1882 he became Dr. Clark's successor. It is understood that Dr. Walter B. James, P. & S. 1883, will be his successor.

**Health Board and Spitters.**—The Board of Health is after the spitters in street cars, ferry boats and public buildings in earnest. At the regular meeting of the Board last week, a resolution was adopted directing the Sanitary Superintendent to enforce rigidly compliance with Section 194 of the Sanitary Code after April 1, 1901. The section referred to prohibits spitting in various public places. Members of the Sanitary Department would not say just what measures would be taken to enforce the law, but it was intimated that after the 1st of next month sanitary inspectors would ride about on

street cars and visit ferry houses and boats and public buildings and would arrest on the spot any person they caught spitting on the floor.

**Sneak Thieves Abroad.**—Dr. Clement Cleveland's residence was entered by sneak thieves who carried away some valuable jewelry.—In the lower West Side an ingenious sneak thief calls early with a note to the doctor asking him to call at a house in the vicinity. While the servant is taking the note to the, perhaps slumbering, physician, the thief "looks around." Later in the day the physician finds his note a blind and his prospective patient is not forthcoming; it may be that his overcoat has disappeared.

**New York Medical Society for Clinical Research.**—A society bearing this name has just been organized. Its object is to encourage young physicians to thorough clinical work and original research. To further these objects a library and laboratory have been established wherein the members may do their special work. The officers for the ensuing term are: Dr. Gutman, President; Dr. Mandel, Vice-President; Dr. Libman, Secretary; Dr. Spivac, Treasurer. Any regularly licensed practitioner who is a graduate of a regular medical college in good standing is eligible to membership.

**Maternity Hospital Incorporated.**—Daniel S. Lamont, Cornelius Vanderbilt, Frank L. Polk, Henry C. Thompson and William Thorne of New York, Moses Taylor of Mount Kensico and Percy R. Pyne of Barnardsville, N. J., are directors of the Manhattan Maternity Hospital and Dispensary of New York City, which filed articles of corporation March 18th with the State Board of Charities. It is proposed to maintain a maternity hospital and dispensary and a training school for nurses in New York City.

**American Congress of Tuberculosis.**—It is announced that the second annual meeting of the American Congress of Tuberculosis will be held at the Grand Central Palace, in the City of New York, on the 15th and 16th days of May, 1901. The medical profession of all countries is invited to contribute papers to be read before this Congress in their behalf by a committee selected for that purpose, in case of the inability of the author to attend; and to enable those who could not hope or expect to be present to participate in the work and usefulness of the body. As the questions to be discussed involve remedial legislation, legislators, lawyers, judges, and all publicists, who take an interest in the subject, are also invited, both to enroll and contribute papers.

#### PHILADELPHIA.

**Hospitals Benefited by Charity Ball.**—The proceeds of the twenty-first annual Charity Ball were \$11,200 which will be divided among the hospitals of the University of Pennsylvania, the Jefferson Maternity, the Philadel-

phia Orthopedic Hospital and the Infirmary for Nervous Diseases, and the Samaritan Hospital.

**St. Joseph's Hospital.**—The trustees of this hospital have recently appointed two pathologists, Drs. Randle C. Rosenberger and Alfred Hand, Jr., each of whom is to serve six months yearly.

**Consumption a Notifiable Disease.**—The Board of Health has taken the following action regarding consumption: *Resolved*, That tuberculosis be hereafter included in the list of pestilential or contagious diseases required to be reported to the health officer." Cases are not to be given publicity by the placarding of houses or by placing them under undue restrictions. It is the intention of the health authorities to cooperate with the medical fraternity in keeping consumptives under surveillance and thus check the spread of the disease.

**Nurse Seeks Reinstatement.**—A writ of alternative mandamus returnable March 25th has been secured by Miss Mariana Wood in her suit against the Pennsylvania Hospital for reinstatement to her position as nurse. Miss Wood was prominent in Philadelphia society circles, but entered the hospital as a nurse in 1898. In August, 1900, she was dismissed from the hospital for violating the rules by "slapping" a patient. Miss Wood has made fruitless efforts to appear before the managers of the institution to justify her conduct. It is now incumbent upon the hospital authorities to file a justification of Miss Wood's dismissal or reinstate her before March 25th.

**Memorial Hospital in Pittsburg.**—By the will of the late C. L. Magee nearly the entire estate of \$6,000,000 is eventually to be applied to the founding of a general hospital to be known as the Elizabeth Steel Magee Hospital in honor of the testator's mother. The will, after stating that the hospital is to be open to the sick and injured of all classes, reads: "I especially desire the admission to this hospital of all females who may apply for admission thereto for lying-in purposes and that they be admitted without any questions being asked as to their past lives or names." A law passed at the last session of the Legislature prevents the building of the hospital on the grounds specified, as it prohibits the erection of a hospital in the built-up portions of the cities of the first and second classes. Memorials urging its repeal are being signed.

**Whisky in Snake-bite.**—Dr. Joseph McFarland at a recent meeting of the Pathological Society detailed the results of attempts to obtain immunizing serum from horses after the injection of snake-venom. Being asked by the President, Dr. Packard, if the effect of snake-venom upon the heart warranted the widely-spread belief that whisky was an efficient antidote, Dr. McFarland replied that strychnine was more nearly a physiological antidote as death usually was due to paralysis of the re-



spiratory centers. He stated further that it was safe to say that whisky does more harm than good when given in cases of rattlesnake bite. Such bites are seldom fatal in this country under any treatment, the fatalities being probably less than 5 per cent.

**Bubonic Plague Not Dreaded.**—The Treasury Department on January 20th appointed a commission to investigate the alleged bubonic plague conditions at San Francisco, there being a controversy between the municipal authorities and the State officials on the point whether there was a genuine case of the plague in the city, the municipal authorities affirming the existence of it. As reported in the MEDICAL NEWS, the commission consisted of Prof. Simon Flexner, of the University of Pennsylvania; Prof. F. G. Novy, of Ann Arbor, and Prof. L. F. Barker, of the University of Chicago. Their report has been completed and submitted to Secretary Gage. According to a Philadelphia daily Prof. Flexner was asked to say something about the nature of the report. "I cannot, of course," he said, "make any definite statement as to the opinion of our committee, or even as to our work, until the proper authorities have published our report. There is, however, so marked, and perhaps so natural, a tendency in every community to worry over a thing of this sort that I am very glad to say that there is no occasion anywhere in the United States for any alarm." Prof. Flexner would offend against ethics, says the *Sun*, if he were to say that the bubonic plague had appeared in San Francisco. But supposing the existence of it to be proved there would be no cause for apprehension, judging from the success with which the medical men have combated the disease wherever it has been diagnosed. It has been proved that it thrives on dirt and bad ventilation, and quickly succumbs to prompt sanitary measures. In a squalid tenement district it would be dangerous only so long as the houses could not be cleaned and disinfected. The bubonic plague caused a scare when it first appeared in Glasgow, but its spread was soon checked and the deaths that occurred did not show a high mortality rate. There were familiar diseases prevalent at the same time which were more deadly. The plague was also reported at Manila, and there were fears for our army. They soon subsided, for the once dreaded fever overran no quarter. It is now officially existent in South Africa, but although the health of the British army is avowedly very bad, the medical staff is losing no sleep over the sporadic cases of bubonic plague. Historically its reputation could not be worse, but either it has lost its virulence or modern science is able to control it almost at will.

#### CHICAGO.

**Bacilli in Books Harmless.**—Health Commissioner Reynolds finds no necessity for disinfecting public library books, his opinion being based upon investigations made by Dr. Adolph

Gehrmann, Director of the Municipal Laboratory. Cultures were taken from the books examined, which were selected by the librarian, and by Dr. Reynolds from the library shelves. In reporting the results, Dr. Reynolds says that no disease-producing bacteria were found on any of the volumes, only the ordinary bacteria usually to be found upon the human skin and upon everything handled by human hands.

**Surgeons Must Report Deaths.**—A bill introduced in the General Assembly of Illinois, March 7th, provides that it shall be the duty of every surgeon who performs a surgical operation, and of every physician who advises and arranges for the same, after which death results within thirty days, to report the same to the coroner of the county within twenty-four hours. It shall be the duty of the coroner to call a competent physician, who has had no previous connection with the case, to make a thorough investigation of all the circumstances before the coroner's jury and report the same as the statute provides in other cases. Violation of the provisions is made a misdemeanor punishable by a fine of \$500 or thirty days' imprisonment.

**Presumption of Miscarriage from Accident.**—The Appellate Court of Illinois, First District, holds in *Strehmann vs. the City of Chicago* that the fact of a miscarriage within two months after an accident, coupled with the evidence of the woman's physician, that the accident, as described by her, might have caused the miscarriage, and no other cause having been proved, it would be a reasonable inference that the accident caused the miscarriage. Certainly, it says, it would be a question for the jury, on all the evidence, whether the accident was the efficient cause of the miscarriage. It holds that it was calculated to mislead the jury for the trial court by an instruction to single out one fact in evidence, namely, the birth of the still-born child, not stating other facts in evidence, and inform the jury that such fact considered alone did not tend to prove that the accident was the proximate cause of it.

**Splenomegaly Primitive or Splenic Anemia.**—At a meeting of the Chicago Pathological Society, held March 17th, Dr. Maximilian Herzog read a paper on this subject, which was based upon a study of the literature of the subject and upon two cases on which Dr. M. L. Harris had performed a splenectomy, both of which recovered. After the removal of the spleen, one of the cases in particular was studied carefully. Before the operation there had been present in this case a marked diminution of the erythrocytes, a low color-index, and an absolute and relative reduction in the number of the leucocytes. The blood had improved very much after splenectomy and there had developed a marked eosinophilia (14-11 per cent.). An examination of the spleens removed, weighing respectively 1,055 and 600 grams, showed a marked endothelial proliferation with enlargement of the blood lymph-spaces

(pulp-spaces). Herzog stated that he had sought in vain for many destroyed blood-corpuscles inside of lymph-endothelia, a picture as is, for instance, found in typhoid fever. Considering the fact that the blood condition had always improved in all cases of splenomegaly in which splenectomy had been performed, provided the patient did not die from the operation, it appeared conclusive that the changes in the spleen must be looked upon as the primary factor in the disease. From an examination of the two cases, as well as from a study of the literature, it appears that no evidence can be found that lymphatic endothelia destroy the blood by directly taking up blood-corpuscles. Herzog therefore advances the theory that lymphatic endothelia of the spleen and of lymph-glands secrete an erythrolytic ferment and in this manner destroy old and worthless blood-corpuscles. In splenomegaly there is an enormous endothelial proliferation, and probably in consequence a largely-increased production of the erythrolytic ferment, which, when present in such a large amount, destroys many healthy blood-corpuscles. If the spleen is removed, the source of the increased production of the erythrolytic enzyme is removed, and the blood improves rapidly and permanently.

**A Case of Vesico-Sigmoidostomy.**—Dr. E. J. Senn, at the Chicago Medical Society, March 13th, presented a very interesting case of exstrophy of the bladder in a young man, twenty years of age, upon whom he performed a vesico-sigmoidostomy. At the same meeting, Dr. E. W. Andrews showed a specimen obtained from a Bottini operation which was performed by him about a year ago. He has done the Bottini operation sixteen times, with one death. Dr. F. Kreissl exhibited a suprapubic drainage-tube of his own design. He claimed that by using this tube drainage of the bladder through the suprapubic fistula is so thorough that leakage of the urine alongside of the tube is almost completely obviated. He showed a specimen from the genito-urinary tract in a case of tetanus following the removal of a tumor by the suprapubic route. He also showed a specimen obtained from the genito-urinary tract after a Bottini operation.

Dr. Daniel N. Eisendrath presented an interesting case of inoculation tuberculosis from cattle-hide with multiple foci on the arm. He also reported a case of renal and vesical calculus with treatment of post-operative anuria, and detailed the history of an instructive case of perforation of the cecum with pericecal abscess.

**Gangrene of the Appendix Simulating Infection following Labor.**—Dr. Denslow Lewis reported the case of an English woman, thirty years of age, the mother of two children, aged three and five years respectively. She was delivered, after a normal labor, of her third child. After narrating the case in detail, he spoke of the relationship of appendicitis to different gynecological conditions. Twenty-three times he has

noted an agglutination of the appendix, normal or diseased, to a right pyosalpinx or ovarian abscess. In a large pelvic abscess which he operated in 1888 by abdominal incision and counter-drainage by the vagina, the attending physicians as well as himself were surprised to find a relationship to the appendix which resulted in a fecal fistula that finally healed. Reported cases seem to sustain the assertion that invasion may be from the appendix to tube or ovary or from the uterine adnexa to the appendix. These possibilities are understood and looked for and the various sequelæ have been described. He has had no experience with appendicitis during labor and the case reported is his first occurring early in the puerperium. It is not unlikely that appendicitis often exists at these times and is usually overlooked. Pregnancy, the puerperium and even the early stages of labor, far from constituting a contra-indication for operative interference, show an additional danger from which the patient can only be safeguarded by a prompt operation.

#### GENERAL.

**Southern Notes.**—Atlanta, Ga., opened a new Hospital for Incurables, on March 2d. It has ten beds and is under the supervision of Dr. J. M. Brawner.—The Woman's Medical College of Baltimore celebrated the twentieth anniversary of its founding February 22d.—The Memphis Hospital and Medical College, Memphis, Tenn., will be started next week and it is hoped that it will be ready for occupancy next November.—Dr. F. E. Daniel has become editor of the *Texas Medical Journal*, vice Dr. S. E. Hudson, resigned.—Kentucky State Medical Society will hold its forty-sixth annual session in Louisville, May 22, 23, 24, 1901; Chairman, Dr. L. Frank, Louisville.—Louisiana State Medical Society holds its next annual meeting at Tulasne Medical College buildings, April 18, 19, 20, 1901; Secretary, Dr. A. G. Friedrichs.

**Cocaine Legislation.**—The Tennessee Legislature passed a bill last month prohibiting the sale or presentation of cocaine save on a physician's prescription, and providing for a penalty of from \$100 to \$500 upon conviction of violation. A similar measure, though extended to the sale of morphine, opium, and chloral, is before the Legislature of Missouri. A similar measure in Georgia was killed through ignorance of its purpose on the part of a few legislators. The fate of a like Alabama measure is unknown. It was reported some time ago that the city ordinance in Knoxville, Tenn., restricting the sale of cocaine to physicians' prescriptions, has been partially defeated by the action of certain physicians in selling prescriptions to habitués; and it was declared that some step would be taken to remedy this.

**Smallpox in United States.**—Ohio had the largest number of smallpox cases last year, 1,666; Tennessee coming next with 1,393, and Minnesota third with 875.



**Royal Red Cross for Nurse.**—The Royal Red Cross, which King Edward VII. has just conferred upon Mme. de Ferrières, Superintendent of the French Hospital at Johannesburg, was instituted in 1883 as a recognition of services rendered by women in connection with the nursing of the sick and wounded of the British army and navy. Among the first upon whom it was bestowed was Miss Nightingale. Countess Roberts is also entitled to wear it. The cross is a handsome ornament, being of crimson enamel, edged with gold, and bearing on the arms the words "Faith, Hope, Charity," and in the center Queen Victoria's effigy. Queen Alexandra is, of course, a member of the order.

**Congress against Alcoholism.**—The State Department is informed that an international congress against alcoholism will be held in Vienna from the 9th to the 14th of April next. The United States Government is invited to send delegates. The program includes discussions upon the effects of alcohol; diseases, heredity, degeneration, and criminality caused by its use; and means to combat alcoholism, both of legal and private initiative. Partisans of the moderate use of liquors, as well as the adherents of total abstinence, are admitted to the congress.

**Medical Students in Berlin.**—At the University of Berlin this winter there were 1,312 students of medicine.

**American Laryngological Society.**—The Council has decided that the seventh annual meeting of the American Laryngological, Rhinological and Otolological Society shall be held at the New York Academy of Medicine in the City of New York May 30, 31, and June 1, 1901.

**Gift to New Montclair Hospital.**—Joseph Van Vleck, a wealthy citizen of Montclair, has offered to give \$8,000 toward the erection of a new hospital, provided the Board of Governors raises \$42,000.

**Pennsylvania and the Cocaine and Morphine Evils.**—The demand from lay interests which has been made in Pennsylvania during recent years that pharmacists be prevented from selling narcotics to habitués has resulted in the following clause in a bill which has been introduced in the Legislature: "No person shall sell or furnish morphine, or its salts; cocaine, or its salts; opium, or any preparation containing 10 per cent. or more thereof; or chloral hydrate, to any person known to be addicted to the habitual use of any of these articles as a narcotic, nor to any person when written notice has been given to the proprietor or manager of the store or pharmacy that such person is addicted to the habitual use of any such articles as narcotics."

In commenting on this bill the *Chicago Bulletin of Pharmacy* says: We deem this an admirable solution of the cocaine and morphine evils—so far, that is, as the law may furnish correction. As we said last month, 'even with such a law the pharmacist should not for-

get that considerable responsibility yet remained to him, and that his duty would be plain to save the unfortunates from themselves so far as he found it possible so to do.' But to discuss the question of a legal remedy alone, such a provision as the one under consideration seems to us much better calculated to control the evil than any which has been previously suggested or applied. The plan adopted in most of the southern cities and States, where the evil has been particularly vicious and rampant, and where the question of a remedy has become one of vital importance, is that of prohibiting the sale of narcotics save upon a physician's prescription. But this has not been found to succeed well in practice. As a recent correspondent has said, 'since there is no law to prevent the refilling of prescriptions, one prescription may be made to do service for the whole community.' Moreover, there are physicians in every large city who, for a consideration, are willing to give prescriptions *ad libitum*, in which case the pharmacist, whether inclined to check the evil or not, has no recourse but to fill the order. The Pennsylvania method furnishes within itself a self-acting agency. The enforcement of the law prohibiting the sale of narcotics is largely given to any member of the victim's family. A wife, mother, or son who desires to prevent a habitué from securing that which not only ruins his own life, but largely the lives also of those who are dependent upon him, has the means of protection at hand."

**St. Louis Medical Society of Missouri.**—At its last regular meeting, March 16th, the following papers were read: "Our Present Knowledge of Hydrophobia," by Dr. Carl Fish; "Recent Modification of Pasteur Treatment," by Dr. John C. Morfitt.

**Adirondack Cottage Sanitarium.**—The last annual report by the Medical Director of this excellent charity, Dr. E. L. Trudeau, is encouraging for the friends of this institution. The running expenses for the year have been fully met by the contributions and permanent increase has been made to the buildings and the various funds, notably the Endowment Fund which has had about \$20,000 added to it this year. The sum of \$130,000 is wanted in order to make a fund, the interest of which will adequately provide the running expenses. The medical report is promising. There were 262 patients treated, 170 being new patients; of these 55 were apparently cured, in 79 the disease was arrested, 25 were improved and 11 were unimproved, and one died. Since 1884, when the Sanitarium was founded, the histories of as many patients as possible have been followed. Of the 1,176 patients discharged during the fifteen years, one-half were living, one-half of these being perfectly well.

**Obituary.**—Dr. Paul von Seydiwitz, a surgeon, scientist and newspaper man, died in

New Orleans on Friday, March 15th. He was a native of Schleswig-Holstein, where he was born in 1821 of a distinguished family. He graduated from the University of Heidelberg, but left Germany in 1848, being involved in the revolution of that year, and moved to Paris. He remained at Paris ten years. He spent some time in Russia, where he pursued his medical studies. From Paris he moved to London, where he was a fellow of the Royal College of Surgeons. After many wanderings he went to New Orleans in 1884 and had lived there ever since, corresponding for various European papers, writing on scientific topics and practising his profession. He was appointed expert on infectious and contagious diseases by the Louisiana Board of Health, represented the United States Marine Hospital Service in the Jacksonville yellow-fever epidemic of 1888 and was also sent to Venezuela and Central American to investigate epidemic. During the late Spanish-American War he served as assistant surgeon on several occasions.

Dr. Henry Mitchell Smith, of New York, died of pneumonia last week at Escondido, Cal., where he had been visiting. Dr. Smith was born in this city in 1835. He was a member of the American Institute of Homoeopathy and Secretary and Treasurer of the Hahnemann Monument Fund.

Dr. John Sargent, the oldest physician in Jefferson County, N. Y., is dead at Woodville, aged eighty-seven years.

Dr. James W. H. Lovejoy, aged seventy-six years, died at his home in Washington, March 19th. Dr. Lovejoy was chairman of the executive committee of the Children's Hospital, and also served several terms as president of the Medical Society of the District. He was one of the incorporators of Garfield Hospital, and had been president of the faculty of the Georgetown University Medical School as well as professor of practice of medicine.

**Old Dominion Hospital.**—This hospital, connected with the Medical College of Virginia, at Richmond, is about to be enlarged so as to accommodate forty more patients.

**University College of Medicine Hospital.**—This building, adjoining the Virginia Hospital, Richmond, is nearly completed. It will have a capacity of some sixty or more patients. Its clinical amphitheater is built on the most approved plans, having all the convenient arrangements for demonstrations, etc.

**Tri-State Medical Association of the Carolinas and Virginia.**—The third annual session of this body was held in one of the halls of the Jefferson Hotel, February 26 and 27, 1901, and was a marked success in every respect. The President, Dr. Charles W. Kollock, of Charleston, S. C., presided with ability, and Dr. J. N. Upshur, Richmond, Secretary, was untiring in his duties.

In his address, the President, Dr. Kollock, favored the abolition of the delivery of a

a formal President's Address, as the time could be put to more valuable use. He thought that a high standard of educational requirement should be required of both teacher and pupil, and that particular attention should be paid to the ethical instruction received by the pupil, while the standard is maintained by the teacher. The methods used in the selection of college faculties are often lax—very frequently the selection becoming more or less of a family affair. When a vacancy occurs, it should be widely advertised, and the candidates be made to undergo a most thorough test. Then men less pretentious, though more meritorious, could be secured—men whose fault is lack of pull.

The fourth annual session will be held in 1902, at Asheville, N. C. Hereafter there will be a Chairman in each of the three States, for the Sections on Medicine, Surgery, Gynecology and Obstetrics.

The following officers were unanimously elected for the incoming term: President, Dr. John N. Upshur, Richmond, Va.; Vice-Presidents, Drs. J. W. Long, Salisbury, N. C.; S. C. Baker, Sumter, S. C.; Hugh M. Taylor, Richmond, Va.; Secretary and Treasurer, Dr. H. A. Royster, Raleigh, N. C. To fill vacancies in the Executive Committee: South Carolina—Drs. W. P. Timbermann, of Timbermann, S. C., three years, and Manning Simons, Charleston, one year; North Carolina—Dr. J. W. Marsh, Fayette, two years; Virginia—Drs. Southgate Leigh, Norfolk, two years, and J. S. Wellford, Richmond, three years. Dr. J. C. Hemmeter, Baltimore, was elected Honorary Member. Subject Selected for Special Discussion during Session of February, 1902, Tuberculosis—Dr. J. A. Burroughs, Asheville, N. C., Leader.

## CORRESPONDENCE.

### The Giving of Commissions and Division of Fees.

*To the Editor of the MEDICAL NEWS:*

DEAR SIR: In the MEDICAL NEWS of February 9th I was much interested in a discussion by members of the Chicago Medical Society relative to the "Giving of Commissions and Division of Fees."

I should like to get my finger in your button-hole and burden you with my views on the subject. The line of work I endeavor to follow obliges frequent consideration of the subject under discussion and, being personally acquainted with four members of the Committee of Five to whom the resolutions were referred, kindles in me a spirit to say a word in defense of the surgeon and at the same time something in behalf of the general practitioner. In the first place, no conscientious physician, be he surgeon or general practitioner, desires in any way to lessen the dignity of the profession.

That being the case the question of com-



missions at once disappears and leaves only for consideration the one important subject of "Division of Fees." "The laborer is worthy of his hire." If the surgeon's work is such as demands unusual skill and an extended knowledge of pathology and technic, acquired only after years of seemingly endless work, expense, sacrifice and self-denial then his remuneration should be in proportion to the value of his service and the financial ability of his patient. Every surgeon who performs a major operation, be it from three seconds to three hours in duration, takes upon his shoulders the responsibility of a human life or at least an individual's future welfare and happiness.

These cannot be reckoned in dollars and cents.

When a client consults his attorney relative to the preservation of a piece of property the title of which is rightfully vested in him, but which, owing to a legal technicality, is liable to be swallowed up by some big corporation, the first question the lawyer asks is: "What is the value of this property?"

On being told it is worth from four thousand to five thousand dollars the lawyer, if he is "up to date," agrees to undertake the work and go "halves." Now this unfortunate client well knows that he is "up against it," but keeps a stiff upper lip and agrees to the proposition. The same man if he were asked two thousand or twenty-five hundred dollars to save his boy in an attack of appendicitis would, in all probability, roar even louder than the editor of the *Chicago Times-Herald* in commenting on the size of a surgical fee for work, the gravity and importance of which he apparently has not the conception of an idea.

And it is ever thus. The man who poses as the great disseminator of truth to the benighted layman will invariably expose the dwarfed proportions of his microscopic soul by burdening the world with his exalted opinion on a subject he is as unqualified to discuss as the veriest ragamuffin that runs the street.

The vast majority of such editors compliment the talented attorneys on the enormous fees they command and never lose an opportunity to "lambaste" and bemean a reputable, conscientious physician.

I have operated on something over one hundred cases of appendicitis and, although that is a small number compared with what surgeons in large cities encounter, I feel at liberty to speak to the point on the subject.

It is but fair that the family practitioner should receive full compensation for his services in proportion to the rôle he fills. If he assists in the operation and bears half the responsibility, he should receive one-half the fee. If he makes the diagnosis and outlines the course of procedure, but assumes no responsibility in the operation, he should be remunerated accordingly and whatever amount he receives (I advocate a liberal one) should be paid

him by the patient as it has nothing whatever to do with the special fee for the operation.

This is with equal justice to patient, family practitioner and surgeon, and should not unbalance or disturb the harmony and mutual friendship existing among them. In conducting my work such has been my practice and so far it has proven satisfactory to all concerned.

If a physician treats a family for twenty years and does not receive twenty-five hundred dollars he has, in all probability, not been called upon to tender very much service, or else his service has not been of much value and he is conscientious enough to charge accordingly.

The fact that he has, or has not, realized a good yearly income from a certain family cuts no figure in determining the amount of a surgical fee for operation on one of its members.

ORVILLE O. WITHERBEE.

612 Frost Building, Los Angeles, Cal., February 24, 1901.

### OUR LONDON LETTER.

[From Our Special Correspondent.]

LONDON, March 9, 1901.

THE LOSSES FROM SICKNESS OF ARMY IN SOUTH AFRICA—THE LIVERPOOL SCHOOL OF TROPICAL MEDICINE—DEATH OF DR. MYERS OF THE YELLOW FEVER EXPEDITION TO BRAZIL—A CHAIR OF TROPICAL MEDICINE TO BE FOUNDED TO HIS MEMORY IN UNIVERSITY COLLEGE, LIVERPOOL—SANITARY RULES FOR THE PREVENTION OF MALARIA—CONTAGION AS A FACTOR IN PROPAGATING TUBERCULOSIS—SMALLPOX IN GLASGOW—THE DISEASE CARRIED TO EDINBURGH—SANITARY PRECAUTIONS IN SCOTLAND—ELABORATE PRECAUTIONS IN LONDON AGAINST AN OUTBREAK OF PLAGUE.

A VERY interesting article on the losses in the South African War through sickness has been published in the *Daily News* by a statistician who has made a careful study of the official figures. It appears that the army of occupation probably never exceeded 220,000 men and that at present it is a dwindling force (shortly to be reinforced) of about 200,000 men. For the four weeks ending April 28th the deaths from disease show a weekly average of 188. In a force of 200,000 this represents a death-rate of .094 per cent. or of nearly 49 per 1,000 per annum. During May and June the death-rate rose to 71 and 63 per 1,000 respectively. For the three months 3,007 men out of 200,000 died of disease, yielding an annual death-rate of 60 per 1,000. The death-rate of the Army at home is between 4 and 5 per 1,000. Turning to the last six months of the war, the figures, if less acute, are hardly less disquieting seeing that no crisis occurred. During the half year ending January 31st last 2,816 men have died of disease giving a rate of 28 per 1,000 per annum. In India, with a climate obnoxious to Europeans, the death-rate of the British troops is little

more than half this figure. The last four months show an increasing death-rate, thus October, 22 per 1,000; November and December, 27; January, 36. The losses of the army from sickness which lead to the invaliding home of the men is much greater than those from death. In April, May, and June the loss through sickness was 3,000 deaths and 12,000 invalids, or a loss of strength at the rate of 300 per 1,000 per annum. In the five months, April to August, there were 4,000 deaths from sickness and 30,000 men were invalided home; in other words, the Army was losing at the rate of 70,000 men on a basis of 200,000. Turning to the last six months 2,816 men have died of disease and 13,090 have been invalided home—a total loss at the rate of 159 per 1,000 per annum.

An influential meeting has been held at the Town Hall in connection with the Liverpool School of Tropical Medicine "to consider the subject of health and sanitation in West Africa and the Tropics in the light of the researches of the three malaria expeditions of the School of Medicine. On several occasions in my letters I have referred to these expeditions which the extraordinary enterprise this only recently-established school has organized. The Chairman, Mr. A. L. Jones, referred in feeling terms to the death of Dr. Walton Myers, who with Dr. Durham volunteered to go almost without remuneration on the expedition to Brazil. Both contracted yellow fever after making a necropsy in a case of the disease. Dr. Myers succumbed. He was only twenty-eight and had taken high honors and gave great promise. Owing to the action of the shipowners and others a Chair of Tropical Medicine will be endowed in University College to be called the Walter Myers Chair. Sir William Church, President of the Royal College of Physicians, said that when he was present two years ago at the inaugural meeting of the School he was surprised at the enthusiasm with which the movement was taken up, alike by members of the medical profession and by leading commercial men in Liverpool, Manchester and other centers. Referring to malarious countries, he said it had been computed that the mere machinery of government cost more than double the ordinary amount—in other words it took two men to the work of one. If the mortality could be reduced one-half the volume of trade might be greatly increased. Many of the malarious countries were the richest on the globe. Therefore money spent in investigating their disease was beneficial both from a commercial and a humanitarian standpoint. Major Ross of mosquito fame described briefly the results of the expeditions. As to sanitary matters he said that the best water-supply was rain water. All other sources were contaminated by the natives. But during the dry season water-supply was a difficult question

and well, spring and river water had to be used. As to European houses, those of Government officials were generally well situated, but those of the various trading companies were generally placed in bad positions—in low-lying districts close to swamps and the crowded huts of natives. After a visit of eight months, covering a large extent of Nigeria, the members of the expedition arrived at the following conclusions as to how malaria might be prevented: (1) Living apart from the natives at a distance of about half a mile. Native children to a surprising extent harbor the malarial parasite in their blood, and it is conveyed thence to Europeans living close by. European quarters are almost invariably surrounded by native huts; the nearer the quarters are the more unhealthy is the district. On the other hand, quarters situated at a distance from native huts are very healthy. (2) Surface drainage of the areas around European quarters. This measure without the previous one would not be efficient; combined with it the two together would ensure complete freedom from malaria in Europeans. He hoped some day to see tracts of West Africa reduced by careful sanitary regulation to the comparative condition of salubrity at present enjoyed by a tropical country which was once as unhealthy as the unhealthiest—India.

To the February number of the *Polyclinic* the editor, Mr. Jonathan Hutchinson, has contributed an important article on Tuberculosis Problems. The doctrine of contagion is, he thinks, carried too far. He suspects that the bacilli are almost ubiquitous and possibly exist in a latent state in almost every individual. The fact that no local epidemics of phthisis are ever observed is opposed to the idea that contagion plays an important part, as is also the fact that no races or communities are known in which, irrespective of habits and occupations, the disease is rife. In a general way it may be said that the decadence of tuberculosis is in proportion to the prosperity of the nation. During the last half century England has witnessed a remarkable decline, and this although no special measures have been taken to prevent contagion. We have been prosperous, and meat, fat-foods, bread, milk, beer, and wine have been cheap. The repeal of the Corn Laws was the best means of legislation which could have been contrived for the diminution of consumption. The hastily-assumed association between intestinal tuberculosis in children and raw milk has been shown to be mistaken. Calves even when fed from tuberculous udders scarcely ever contract the disease.

Although the sanitary authorities of Glasgow profess to have got a grip on the smallpox outbreak, 19 fresh cases were reported yesterday and three deaths, making the death-roll 120 while the cases in hospital number 387. Thirty patients have been discharged from



hospital cured. A case of smallpox was discovered in one of the common lodging-houses in Edinburgh. The patient was a man who with another had tramped from Glasgow. A number of persons in contact with him have been put in quarantine. The Glasgow outbreak has caused great sanitary activity in Scotland, for that city has intimate relations with the rest of Scotland. Hospital accommodation is being provided and vaccination and revaccination are being offered free. In places near Glasgow, such as Paisley, special activity is shown. Lists of persons living in Glasgow and employed at Paisley have been prepared, so that they may be kept under observation.

The London County Council are taking elaborate precautions in view of the possibility of plague visiting London. Their Public Health Committee is authorized to expend, if necessary, a sum not exceeding \$250,000 for precautionary measures. The following provisions are recommended as necessary: (1) Accommodation ready at the moment when required; (2) accommodation which can be got ready in a few hours; (3) accommodation which can be got ready in a few weeks. For the first separate quarters for "suspects" and "contacts" are being prepared in each of the four divisions of London to accommodate 212 persons. For the second purpose accommodation with be provided for another 200 persons, which will involve the immediate acquisition of additional premises at an estimated cost of \$80,000. For the third purpose a scheme has been prepared for temporary buildings for 600 persons to be erected on land in the Council's possession at a cost of \$90,000. These buildings will not be erected unless plague actually appears in London, but provisional contracts will be made and all necessary arrangements completed, so that in case of emergency the work can be begun without delay.

#### TRANSACTIONS OF FOREIGN SOCIETIES.

##### French.

APPENDICULAR HEMATEMESIS—FREQUENCY AND CAUSE OF CERTAIN APPENDICAL SYMPTOMS—HYDROCELE—MENINGITIS SECONDARY TO INFLUENZA—TYPHOID CONTAGION.

DIEULAFOY, at the Académie de Médecine, February 12, 1901, discussed hematemesis as a complication of appendicitis. He stated that it is not an extraordinary symptom, because he has himself noted six cases within one year and several writers have mentioned it in literature. The hematemesis is habitually preceded by true bilious vomiting, afflicts children as well as adults, recurs at rather short intervals, and usually ends in death. The quantity of blood ejected varies from 200 or 300 to 800 c.c., is usually fluid and red, but may be clotted and blackish. Patients who have been operated on too late are those who are attacked in this way. This complication is

only the expression of a general toxemia and of the virulent infectious character of the disease, which is proved by the fact that these symptoms occur along with others of septicemia, as albuminuria, urobilinuria, moderate or severe jaundice, etc. The effect of this toxemia upon the gastric mucosa is the cause of the bleeding. Postmortem examination has showed small ulcers, situated chiefly at or near the pylorus, occurring singly or multiple. The conclusions are that appendicitis is a toxo-infectious disease which threatens the entire economy and the cure of which is dependent directly upon the time at which the operation is done. The earlier the better in all cases. Lucas-Championnière in discussing this condition at the meeting of February 19th, said that hematemesis after appendicitis operations is comparable to black vomit which so often appears after other severe laparotomies. While the gravity of the appendical hematemesis is admitted he differs in holding that it is curable, as has within his experience several times occurred with the aid of gastric lavage with alkaline fluids. The report of Dieulafoy tended to show the frequency of severe attacks of appendicitis and the essential gravity of this disease in itself, which seems at the present time to be increasing. If these conditions had existed in the past, it is difficult to see how their observation and record could have so entirely escaped so many competent practitioners. A parallel is offered by the fact that appendicitis has lately been reported as often complicating pregnancy. Pinard has recently seen it three times within one month, while the speaker during a past ten-year experience in midwifery did not find it once. He therefore holds that if appendicitis is not strictly a new disease it certainly differs materially from the typhlitis and perityphlitis of our forefathers. As supporting this view he quoted his own statistics. From 1882 to 1899 he opened thirty-four large right iliac fossa abscesses of appendical origin, of such nature and degree that only rapid incision, evacuation and drainage could be done. From 1899 to 1900 he had treated in the same manner nineteen parallel cases. If appendicitis were not augmenting in severity and since so many preventive operations are done, we should expect a vast decrease in the number of such abscess cases. If the same ratio had been maintained through the first-named period the total would have been one hundred and fifty-two cases. The later great augmentation seems to show an increased virulence, and probably depends upon the increasing causes of all intestinal infections. Setting aside those cases of appendicitis which seem to depend upon influenza, as was recently demonstrated by Faisans, the speaker pointed out the remarkable frequency of appendicitis among the meat-consuming nations as illustrated by the United States and Great Britain. In his own private practice most of his patients have been meat-eaters, inordinately or almost exclusively. In addition to this error in diet is the disfavor with which free catharsis is regarded.

Periodic judicious use of purgatives will no doubt act as a preventive measure, but not as a curative measure. The really curative treatment of appendicitis is strictly surgical.

ROBIN, in the discussion said that he has noticed the frequency of appendicitis among patients who have suffered more or less from gastric or intestinal dyspepsia, or both. The most common type he considers to be gastric hyperasthenia. As to the nefarious effects of certain forms of diet, he considers animal food as harmful and has found as high as twelve per cent. of nitrogenous matter in the feces of meat-eaters upon careful chemical analysis. He likewise considers carefully dietetics and the regulation of the bowels as very important. Lancereaux stated that he had recently cured a woman of appendicitis by purges, repeated in full doses on each of three successive days.

PEYROT, at the meeting of February 5th, read in the name of Milian and himself notes as to the pathogenesis of chronic hydrocele, teaching that it exists as a consequence of alterations in the tunica vaginalis, independent of any epididymo-orchitic lesions. In this sense a chronic hydrocele is perivisceritis, precisely as is the case in pericarditis, pleurisy and peritonitis, with which it is very often found in association. The cause of such chronic hydrocele should be upon the same basis as that of these other ordinary periviscerites. As in them, tuberculosis is not by any means to be considered the ruling etiological factor. Cardiopathies, nephritides, arteriosclerosis and such systemic disorders are rather the true causes or the associated conditions, beneath which in common lie general systemic infections, benign or malign, which may leave behind them some local chronic inflammation.

RENDU, at the Société Médicale des Hôpitaux, February 1, 1901, communicated a case of cerebrospinal meningitis secondary to the grip. The child had for a few days complained of a nasopharyngitis and later was overtaken by pain and paresis of the lower extremities and absence of the patellar reflexes, Kernig's sign, stiffness of the neck, etc. These symptoms improved shortly under warm baths several times daily and the withdrawal by lumbar puncture of about twenty-five cubic centimeters of spinal fluid. The pains in the lower extremities and stiffness of the neck soon vanished, but the muscular weaknesses persisted. The explanation of this seems to be that the cerebral element probably disappeared altogether, while lesions of the cord gray-matter either lingered or were permanent, or the anterior nerve-roots were affected. Cultures from the cerebrospinal fluid persistently remained sterile.

TROSTER claimed that true contagion is not at the bottom of every case of enteric fever developing within the hospitals. For example he cited a woman in his own service who was attacked by the disease thirty hours after admission. In this instance it is likely that the disease was inoculated upon her by water, filtered

but not boiled, used in lavage which was her treatment at the time.

VINCENT in the discussion held that except by contagion there is no explanation for the spread of the disease among the nurses and attendants assigned to care for typhoid patients in such institutions and military prisons. The sequence of the infection seems to be, first, the hands, then the food, and, finally, the system. If the water were at fault, attendants elsewhere in the hospital would also be affected.

## SOCIETY PROCEEDINGS.

### CHICAGO PATHOLOGICAL SOCIETY.

*Stated Meeting, Held February 11, 1901.*

The President, Dr. L. Hektoen, in the Chair.

**Osseous Stylo-hyoid arch.**—Dr. Thomas R. Crowder described three cases. The stylo-hyoid arch is a constant structure in the higher vertebrates. In many, as the horse, cow and sheep, it is completely bony; in man it is largely ligamentous. Developmental defects with more or less ossification are not infrequently found, but complete bony arch is rare. The three cases presented were not recognized before death. The anomaly is to be looked upon as a developmental defect, and not as an ossification of the stylo-hyoid ligament once developed in the normal way. It has no clinical significance beyond the possibility of fracture—an unlikely accident.

**Blastomycetic Dermatitis.**—Dr. F. G. Harris reported a case of blastomycetic dermatitis in a woman seventy-eight years old. The growth was located on the gluteal region and commenced four years ago as a pimple, which became a roughened area of intense itching and later became apparently denuded. The growth was 11 centimeters long by about 6 centimeters wide, having an elevated border bearing flattened papillomatous outgrowths which overhung the floor, the latter being covered with villous-like epithelial projections interspersed with areas of ulceration. The entire growth was movable on the underlying tissues; there were no secondary growths on any part of the body, nor were there any evidences of syphilitic infection. Microscopic examination showed a hyperplasia of the *rete mucosum* which grew down into the corium in branching, coral-like projections. In these epithelial downgrowths were miliary abscesses containing the blastomycetic organisms which were present in groups of three or more. Many of them were in the process of budding. There were no cultures made from this case on account of the diagnosis not having been made clinically.

In the discussion of Dr. Harris' paper Dr. Lieberthal referred to a case recently observed, in which a provisional diagnosis of syphilis



was made, where the blastomyces were found in sections. He still held to his original diagnosis.

H. T. Rickets said that the histology of blastomycetic dermatitis is a specific one and entirely different from that of tuberculosis and syphilis.

H. G. Anthony spoke of the points of difference between blastomycetic dermatitis and the syphilitic and tubercular lesions resembling it.

L. Loeb called attention to the fact that blastomycetic dermatitis had not been produced experimentally.

W. E. Coates compared blastomycetic dermatitis to certain diseases in plants. He considers the organisms observed in the skin lesions as spores of fungi.

F. G. Harris stated that his case was treated with iodides for three weeks without any improvement.

**Carcinoma of Lungs.**—Dr. Le Count demonstrated a diffuse secondary carcinoma confined to the lymph-channels of both lungs of a man who died from carcinoma of the stomach while in the service of Dr. Kramps at the St. Elizabeth Hospital; the condition was correctly diagnosed during life. At the necropsy, the usual large metastatic tumor nodules were found in the liver together with an extensive involvement of the peripancreatic, retroperitoneal, peribronchial and peritracheal lymph-glands; the adrenals were the seat of a very extensive carcinomatous growth; there were small tumors in the outer parts of both kidneys. The primary tumor from which all these metastatic growths arose was located near the pylorus and showed no features other than are often observed in gastric carcinomata. The lungs were alike in appearance; both possessed very extensive subpleural, linear, branching and tortuous carcinomatous growths in the lymph-channels as well as tumor masses in the lymph-channels of the deeper parts of the lungs. There were no nodular growths in the lungs, as are observed in consequence of the embolism of tumor-cells. The lungs were fresh, no microscopic examination having been made, but the gross appearance supported in all its details, the opinion that a retrograde lymphatic metastasis had occurred in these channels from the lymph-glands at the roots of the lungs.

**Toxic Action of Formaldehyd.**—Martin H. Fischer reported the results obtained from a study of the toxic effects of formaldehyd and its aqueous solution, formalin. The inhalation of formaldehyd is accompanied by marked inflammatory changes throughout the respiratory system. Dyspnea, depression of temperature, tachycardia, weak pulse, and vomiting follow the introduction of formalin into the stomach. Sudden death may result. The severity of the symptoms and the degree of histologic disturbance bear no relation to the

strength or quantity of the injected formalin. The gastritis is characterized by intense congestion, necrosis and leucocytic infiltration. Intraperitoneal injections produce a fibrinohemorrhagic peritonitis of varying intensity according to the strength of the solution. The peritonitis following chronic formalin-poisoning produced by injecting small amounts of dilute formalin intraperitoneally is accompanied by great connective-tissue proliferation and a striking eosinophilia. Subcutaneous formalin injections produce marked exudation and leucocytic infiltration. The introduction of formalin into the conjunctival sac is followed by an iritis, which when a single drop of the concentrated chemical is used may be sufficient to permanently injure the eye.

In whatever way formalin is introduced into the body, certain systemic changes result. Degenerative changes and focal necroses are found in the liver and kidneys. The leucocytic infiltration following the introduction of formalin is characterized by the eosinophiles appearing first; these are followed by the other polynuclears; last of all appear the mononuclears. It is believed that differences in osmotic pressure are to be held accountable for the exudation. The death of the cell is accounted for in two ways, (1) by disturbances in osmotic pressure and (2) by a deleterious chemical action—probably the reducing power of formaldehyd.

#### NEW YORK COUNTY MEDICAL SOCIETY.

*Stated Meeting, Held February 25, 1901.*

The President, George B. Fowler, M.D., in the Chair.

**Dangers of Syphilis.**—Dr. Prince A. Morrow read a paper on the medical aspects of the social evil. He said that syphilis is worse than any foreign pest, although so much care is taken and so much money is spent on sanitary precautions to prevent the entrance of these diseases, while syphilis is allowed to go absolutely unguarded. It has been calculated that one-eighth of all the patients in hospitals are suffering from venereal disease or its consequences. We have no data on this question here in New York, because, unfortunately, they are considered shameful diseases, whose admission would, as the lawyers say, "degrade or incriminate" a patient and so the actual condition of the affairs with regard to their prevalence remains unknown. Syphilis is rather an urban, than a rural disease.

**Prevalence of Gonorrhea.**—With regard to gonorrhea its prevalence is well known. Neisser, the discoverer of the gonococcus, says that it is the most universally prevalent of contagious diseases with the single exception of measles. In cities in Europe where statistics are available it is said that more than one-half

the population, or even in some cases more than three-fourths of the male population have, or have had, gonorrhea. With regard to syphilis, Fournier states that 15 to 23 per cent. of the patients under treatment in the general hospitals of Paris are suffering from syphilis or some of its sequelæ. As the hospitals are recruited from the various classes of the population of the city, he concludes that about one-seventh of the population of Paris is syphilitic. These figures probably apply to New York with equal force. Of dispensary patients about ten per cent. of the patients in an ordinary hospital are treated in the genito-urinary dispensary. Besides these a number of venereal cases are treated in the skin clinics, a number more in the gynecological clinics, and no insignificant number in the eye, ear, throat and nose clinics.

**Army Venereal Statistics.**—Cunningham stated some time ago that in British India, as the result of investigations made in 1885, it was found that 53.7 per cent. of invalided soldiers suffered from venereal diseases. About 30 per cent. of these suffered from syphilis. During one year there were over a million days of service lost as the result of venereal disease. Twenty-five per cent. of the soldiers who returned from India to England were syphilitic. It is to be hoped that our soldiers who come back from the Philippines will not bring the disease back with them in any such proportion as this. It may be stated that the British army statistics show a higher proportion of soldiers suffering from venereal disease than that of any other army. The reason is the neglect of precautions in the matter, because of the objection of the Anglo-Saxon mind has to acknowledging the danger of the social evil for the army.

**Seriousness of Gonorrhea.**—While formerly gonorrhea was thought to be a simple disease, it is now known to be very serious. The gonococcus has been found capable of affecting all the serous membranes. It readily attacks the inner or outer linings of the heart, or even the peritoneum. A large number of fatal complications have been reported of late years as the result of these gonococcic invasions. It is generally conceded that most salpingitis is gonorrheal and that many of the diseases of the uterus and the adnexa have the same etiology. Some of the Germans go so far as to say that 80 per cent. of gynecological affections are due to the gonococcus. Most of the children who lose their sight shortly after birth do so because of gonorrheal ophthalmia. This disease still continues to furnish a large contingent to blind asylums, and 10 to 20 per cent. of all the blind owe their affliction to gonorrheal infection. Formerly the number of such cases was even larger, running as high as 40 to 60 per cent. At the present moment there are in Germany, according to Neisser, 30,000 patients who are blind because of the gonococcus. Neisser is sure that many are saved by the Credé

method and believes that this should be even more widely practised than it is at present. Gonorrhea has more to do with failure of the population to increase than has syphilis. At least 20 per cent. of sterile marriages are due to gonorrheal processes either in the husband or wife and 90 per cent. of the cases of azoospermia that occur owe their origin to gonorrheal affections of the epididymis.

**Frequency of Syphilis.**—Syphilis affects the general population much more than is thought. It has perhaps not increased in recent years, but its presence has been more insistently urged upon the medical man's attention, because he has learned that many affections, formerly thought to be unconnected with it, are really complications of the disease. Only a quarter of a century ago the main symptoms of syphilis that attracted attention were its cutaneous accidents. Now these are looked upon as entirely subsidiary. The important lesions of the disease are those that occur in the internal organs. Nervous, renal, hepatic, intestinal syphilis and syphilis of the bones—these are the affections that now rivet one's attention. In the first rank of tertiary symptoms of syphilis come undoubtedly the lesions of the brain and cord. Parasyphilitic diseases as they have been called, that is, affections of the nervous system apparently not directly connected with syphilis and yet occurring practically only in individuals who have had syphilis, have attracted a great deal of interest in recent years.

**Syphilis Insontium.**—It has been thought that the acquirement of syphilis meant guilt, but the feature of the disease is that it occurs with unfortunate frequency among those who are absolutely innocent. Often these patients are without the benefit of prompt treatment, because husbands from whom the disease is contracted are fearful that their victims should find out the real nature of the malady. Of 100 cases of syphilis in women in the St. Louis Hospital, Paris, Fournier found in 19 that the disease was due to conjugal infection. At St. Louis the proportion of questionable characters that come for treatment is larger than at most hospitals. Seventy per cent. of syphilis in women under treatment at the New York Hospital is due to conjugal infection. The disease spreads very easily in a household. Nurses contaminate children, children sometimes infect nurses. Mothers infect nursing children, the little ones are fondled by other members of the household and thus syphilis becomes spread throughout the family.

**Syphilis and Medical Practitioners.**—Surgeons and accoucheurs, genito-urinary specialists and even general practitioners are much more often the victim of innocent syphilis than is usually known. Dr. Morrow has seen more than fifty cases in medical men in which syphilis was innocently contracted while in the pursuit of their profession.

**Hereditary Syphilis.**—Syphilis is the disease which is most transmitted by heredity. While the hereditary character of most other diseases



has been limited, hereditary syphilis has become even more significant. Sixty to 80 per cent. of stillborn children owe their premature death to syphilis. Most of the children born during the active stage of syphilis in the parents suffer very severely from the ravages of the disease which they inherit. Rickets is almost exclusively syphilitic in its origin.

**Significance of Venereal Diseases.**—It is evident then that venereal diseases are of immense social significance, yet no attempt is made to limit their spread. In many cases it is evident that venereal disease owes its spread to almost wilful negligence; at times apparently deliberate malice. At the present moment the extermination of contagious disease is the watchword of the sanitarians. Why, then, should venereal diseases be ignored? Not a single city in this country has regulations for the prevention of the spread of venereal disease. Is it that such regulations are beyond the sphere of municipal authorities? Syphilis is twenty times more contagious than tuberculosis and almost as severe in its ravages. A sad feature of venereal contagion is that it is mostly the young and immature who are affected by it—women of eighteen to twenty, men of twenty to twenty-five. Their lives are practically ruined by a thoughtless act under the stress of temptation at the moment when they are most in need of protection.

**Prostitution as a Cause.**—There is no doubt that prostitution is the *fons et origo* of venereal diseases. Can prostitution be suppressed? It is a Utopian idea to think that prostitution can be exterminated. It has existed in all ages; it is not an indispensable evil, but it is an inevitable one. Our present laws take a certain amount of cognizance of it. They send the brothel-keeper to prison. They punish street solicitation, but they go no farther. Our laws acknowledge the existence of the evil, but do not attempt to regulate it. Legal regulation of prostitution exists in France, Germany, and Austro-Hungary. It has been recently reestablished in Italy, and, in a certain limited way, it existed in England and Norway for over twenty years, between 1860 and 1890. The method of regulation adopted is by the registration of prostitutes who are legally required to be examined by a medical man at regular intervals and who are confined in the hospital whenever they suffer from a contagious disease. This is evidently an attempt to hygienize an insalubrious occupation. The principle on which the regulation is founded would seem to be the same as that which forbids the selling of bad wares. The trouble, of course, with any system of regulation is that clandestine prostitution continues and unless most stringent measures are instituted, the number of unexamined prostitutes becomes larger than those who are under the law. In Paris, for instance, the number of legally-constituted houses of prostitution has come down from 250 to less than 40 during the last twenty-five years. In Marseilles the number has become reduced from 120 to 19; in Bordeaux, from 60

to 18. The amount of clandestine prostitution has increased in at least the ratio that legalized vice has decreased.

**Increased Danger.**—Where legal regulation of prostitution exists, but is not properly enforced, the danger of the spread of venereal disease becomes greater. The vice that flaunts itself in music- and dance-halls is less under control and more dangerous than open prostitution. One difficulty with all present methods of regulation is that only one element in the spread of venereal disease, the female, is brought under the influence of the law. The man also should be submitted to medical examination. Another difficulty with the law is in its application. When the police have discretionary power this readily becomes a means of blackmail and persecution. The serious objection to legal regulation of prostitution is that it proves a provocation to vice. It removes one of the deterrent features by lessening the fear of disease. The hygienist and the moralist should work together. So far they have seemed to be working at cross-purposes.

**Vice Crusades.**—The spasmodic attacks of virtue in a community that lead to harsh measures against the vicious classes often do more harm than good. The efforts of the reform administration in this city five or six years ago simply drove vice from its usual haunts and scattered it broadcast throughout the city. The volume of vice was not diminished; it was only diverted from its usual channels. True reform must not come simply from effort at repression, but from consideration of the different phases of the question and an endeavor to provide remedies for many concomitant evils. Homes for fallen women must be founded and encouraged in order to give these people a chance to rise from their present condition. The age of consent in women must be raised by law so that the present recruits to the ranks of prostitution, as the result of early seduction of young girls, shall cease. The purveyors of vice who tempt young women into taking up a life of prostitution must be punished severely and must be hunted down without compunction. Dance-halls must be suppressed when of bad character, or thoroughly regulated when it does not seem that their only object is the encouragement of vice, or the providing of a place of assignation. Even with all this entire reformation will not come. Regulation of the evil that is left will be necessary. Public opinion in this country will not permit the licensing of vice, as it is called. The French system was tried at St. Louis in 1872, but it lasted for but one year and then was swept away by the combined efforts of all the religious people of the State.

**Hospitals and Venereal Disease.**—Nothing could very well be more important for the prevention of the spread of disease than the provision of hospital accommodation for those affected by venereal disease so that they may remain in the hospital until such time as their disease is no longer contagious. Our accommodations, however, in the hospitals of large cities

for the treatment of such patients is miserably inadequate. There is not room in the hospitals of New York for one in 2,000 of the prostitutes who are known to be in the city. Altogether there are just 26 beds in which syphilitic women can be treated. These are in the City Hospital, for no other hospital in the city will receive such patients. As the result of this discouraging state of affairs, because of false notions of delicacy and morality, not one in ten of those affected by syphilis are properly treated. Provision for the treatment of syphilitic men is scarcely better. There are 56 beds for the treatment of male patients in the venereal wards of the City Hospital. In addition to this there are a few in the Metropolitan Hospital. The plea that syphilis is refused because of its contagiousness is only a pretext. Any hospital can provide against the possible contagiousness of the disease and that without very much trouble.

**Venereal Wards.**—Every hospital in the city should provide free beds for the treatment of venereal patients. This would do more to suppress the source of the contagion than any other possible measure that can be applied at the present time. Patients suffering from venereal diseases are reasonably anxious to be well treated, but often have neither the time nor the money. In the night class at the New York hospital which is opened for surgical cases, but which receives venereal diseases, 70 per cent. of the patients received for treatment are suffering from venereal diseases. Dispensaries should be established in quarters of the city where patients can easily reach them and they should be opened at hours when patients do not have to lose their work in order to attend them.

**Avoidance of Infection.**—All possible sources of infection should be eliminated as far as possible. Chancres should be excised. Mucous patches in the mouth should be cauterized, acid nitrate being the best remedy to employ. Patients should be instructed as to the possibilities of their spreading contagion. Often when the cutaneous lesions disappear, patients think themselves cured. It is impossible fully to instruct patients in these matters and a printed slip of instructions should be handed to each patient. These slips should contain information as to the necessity for syphilitic patients not to use towels and sponges that are liable to be used by others and should tell them of the danger of spreading the diseases through table articles, pipes, or anything that has been in their mouths. The danger of conveying their disease by inheritance should also be set before them.

**Medical Knowledge.**—In order properly to combat the further spread of venereal disease medical men should have more knowledge on this subject. The profession must take its stand before the world as the exponent of moral as well as physical health. It must be well understood that medical men are decidedly of the opinion that continence is not incompatible with health, that harlotry is no

substitute for marriage, and that self-restraint and personal purity are very valuable measures for the preservation of health.

**Statistics Worthless.**—Dr. Frederic Sturgis said in discussing the paper that this subject has already been thrashed out many times. Medical men have often said that restriction of prostitution and regulation of the evil are needed, and we have all said "Amen, amen." Nothing, however, has come of the discussion and this one will probably have as little effect as any of the others. It is claimed that venereal diseases produce much more fatality than they did years ago, but there are those who doubt this claim. Of late insurance companies have been taking more care in the acceptance of life insurance on individuals who have had venereal disease and there has been serious question of putting such risks into a class of sub-standard lives. It is probable, however, that alcoholism has a great deal to do with the fatality supposed to be due to venereal disease. The alcoholic factor is more important than the venereal one. Fallen women seem to suffer very little in health from the ravages of venereal disease. It is a well-known tradition among them that if they leave "the bottle" alone they have good health. Owing to the neglect of the alcoholic factor all present statistics as to the fatality of venereal diseases are worthless.

**Duration of Syphilitic Contagion.**—It is important to know how long syphilis is contagious. It is probable that after the first twelve months of the disease its contagiousness practically disappears. This is a rule, however, which admits of many exceptions. In any given case no assurance can be given, until a longer period than twelve months has elapsed. There is no doubt at all that if a prophylaxis for smallpox exists there should be one also for greatpox. Surveillance is possible. There have been other experiences in this country other than that at St. Louis with the legal regulation of prostitutes. Nashville and Louisville also enforced such measures for a while and with some success. Public opinion was so much opposed to it, however, that the medical examination became a farce, the medical visitor merely asking whether all were well and then being invited to sit down to a bottle of wine. The system of regulation worked very well in St. Louis for a while. Women of the streets became themselves the enforcers of the law for those who attempted to avoid its burdens. It might seem a surprising thing to find that New York should have such poor accommodation for syphilitic patients, but there are so many disgraces attached to New York hospitals that this is not surprising to those who know something of the conditions.

**Increase of Syphilis.**—Dr. Charles Warene Allen said in discussion that several years ago he suggested, as one of the best measures for lessening the social evil and avoiding its



physical dangers, the giving of more publicity to the present knowledge of venereal disease. There seems no reason to doubt that here in New York syphilis is on the increase. Dr. Allen gives figures from the Good Samaritan Genito-Urinary Dispensary. In 1887, 27,000 patients were treated, of whom 327 suffered from venereal diseases; in 1888, 38,000, 635 venereal; in 1889, 62,000, 2,000 venereal; in 1890, 73,000, 2,300 venereal; in 1895, 90,000, 2,700 venereal; in 1900, 86,000 and over 3,000 venereal. The speaker reported a case in which family infection had taken place from a nurse. The nurse conveyed the disease to the child, the child to the mother, the mother to other children and finally to the father. Five cases of syphilis resulted from the introduction of a syphilitic nurse into the family. It is eminently desirable that in a hospital, patients, and especially women patients, should be retained until they have passed their contagious stage. One difficulty with the present condition of affairs as regards syphilis is the objection to the word itself. The disease could be talked about much more freely, and precious information with regard to it conveyed, if it were to be called by some other name. Dr. Allen suggested some years ago the use of the word lues. The important thing for the prevention of the spread of venereal disease is the wide dissemination of knowledge with regard to the subject.

**Failure of Medical Agreement.**—Mr. William H. Baldwin, Jr., Chairman of the Committee of Fifteen, for the Suppression of Vice in New York City, was then asked to take part in the discussion. He said that he had come to be instructed and not to teach. It is evident after this evening's discussion that medical men are not agreed among themselves as to the significance and importance of venereal diseases. There is among the general public a great desire for knowledge on these subjects, because it is hoped to improve present physical conditions. Every one, including such as may not themselves be strictly moral, is desirous of bettering the present ethical condition. This cannot be done, however, unless there is an agreement as to the proper means to be adopted for this purpose. The International Conference on Venereal Diseases at Brussels a year ago agreed that regulation of prostitution was ineffective and inexpedient. There it was decided that what was best was a spread of knowledge on these subjects among the people. Doctors must enlighten the general public on subjects that are now deliberately kept in obscurity. This must be done in a healthy-minded way. At present when vice is driven from its favorite haunts by ill-advised restrictive measures, it betakes itself to the hitherto morally-clean parts of the city. The tenement-houses particularly are apt to suffer and the influence of bad example in crowded quarters is intolerably depraving.

Vice is flaunted in the face of the young and children learn the mysteries of immorality from their earliest years. This must not be allowed. Vice tends to particular localities. Let it be kept there. A prominent minister of the gospel said not long ago that to confine these people to a particular locality was to make a little hell on earth, which would be better than to have a big hell throughout the whole city.

**Vice Regulation at Present.**—Mr. James B. Reynolds, the head worker of the University Settlement, said that his experience for the last two years in New York has been in the heart of the "red light district." It has been said in this discussion that the public opinion of English-speaking people will not permit police regulation of prostitution. In New York, however, there is at the present moment more regulation of prostitutes than there is in Paris. The tax imposed on fallen women is heavier than it is in Paris and it is better collected. It is a fiction to suppose that these women are not known to the police. If the public has tolerated this, why will it not tolerate better directed legal regulation? For better, for worse, we are launched on reform and we must go on. It has also been said this evening that nothing can be done and that the present discussion will prove as futile as have so many others. The heritage which the Twentieth Century has received from the Nineteenth, however, is this: all things, even human action, come under the name of Science. Sociology and its development in a practical way will give us the remedy. Already light is being thrown on a great many subjects in the relation of man to man that were supposed to be beyond the range or the help of Science. The difficult question of the social evil will be solved as have the others.

## BOOK REVIEWS.

**UTERINE TUMORS, THEIR PATHOLOGY AND TREATMENT.** By W. ROGER WILLIAMS, Fellow of the Royal College of Surgeons, London. William Wood & Company, New York, 1901.

THOSE who know Dr. Roger Williams' book on cancer of the uterus will be sure to expect an interesting, practical and thoroughly scientific book on the subject of uterine tumors. They will not be disappointed. Dr. Williams in the Preface states that, in his opinion, the true task for medical authors of the Twentieth Century must be the generalization and reduction to order of the vast masses of chaotic facts which constitute medical law. To this end nothing will be more conducive than the writing of reliable monographs. The author has fulfilled very well this expressed purpose.

Information of the most varied kind, treating of all branches of the subject of tumors, will be

found. The chapter on very large tumors contains a list of the largest neoplasms removed. The record tumor is a cystic myoma removed by Severanu of Bucharest, which weighed 195 pounds. The abdominal distention in the case was enormous, measuring six feet at the level of the umbilicus. The question of the origin of malignant from myomatous tumors forms a very interesting discussion of a much-vexed problem. Among the assertions made are these: According to Bayle, 20 per cent. of all women over thirty-five are affected by myomatous tumors. Dr. Williams thinks there can be no doubt as to the reality of the fact observed by many, yet doubted by good authorities, that cancerous disease may primarily originate in a myoma. It is a rare occurrence, only about a dozen instances of it have been recorded, but it does undoubtedly happen.

The chapter on Lymph-gland Dissemination contains the latest and most interesting scientific work on this important practical question. It involves, of course, the question of the recurrence of cancer and the whole subject is well treated. In general the subject of cancer of the uterus is very up to date. So much has been written on the subject that much of the material here presented comes with an air of familiarity, but the condensation has been very well done.

**THE MEDICAL DISEASES OF INFANCY AND CHILDHOOD.** By DAWSON WILLIAMS, M.D. Second edition, revised with additions by Frank Spooner Churchill, M.D. Lea Brothers & Co., Philadelphia and New York. 1900.

THIS work is a decided advance on Dr. Williams' first edition, admirable as was that little book. In this second edition the author has been fortunate in having Dr. Churchill as his American collaborator, and no small part of the up-to-date character of the work is due to the American editor. It has been the aim of the author to give pictures of the various diseases which shall emphasize the differences from their manifestations in the adult, so that the book is just what it professes to be—a treatise on disease in infants and children.

The subject of infant feeding is so large that it is of necessity inadequately treated; but the chapter on food will prove of great value to those young practitioners who are not familiar with the methods of home modification of milk, nor with the principles that guide one in percentage feeding. The illustrative cases are very instructive, and in this particular the book has followed the admirable plan of Rotch's able presentation of the subject. The reviewer thinks, however, that it would be better to advise putting babies to be weaned on formulæ much lower in proteids when first taken from the breast. The change to stronger formulæ should then be made just as rapidly as the absence of vomiting and of curds in the stools will permit. This for the reason that maternal milk, which analyses 4.0 fat, 7.0 sugar, and 1.5 proteids, is about twice as easily digested as the laboratory milk of exactly the same chem-

ical strength. Moreover, in home modification the use of the Materna apparatus is liable to result in the food being given too sweet, for the accurate measurement of the milk sugar in so large a vessel is difficult or impossible.

The author is to be complimented on the clear presentation of the important subjects of summer diarrhea and intestinal toxemia. The technic of lavage, of colon irrigation, and of all the best methods of treatment, is given in full, so that a comprehension of this chapter by every practitioner would result in the saving of thousands of lives every summer.

In the chapter on bronchitis and pneumonia the physical signs are admirably described, and the differences from the signs in adults clearly noted. In the treatment the author makes no mention of the usefulness in bronchitis and bronchopneumonia of the mustard jacket nor of inhalations of vapor from the croup-kettle; instead, graduated baths, warm or cold, are strongly advised.

Other chapters especially good are those on tuberculosis, rheumatism, hydatids, rickets and adenoids. In the last, however, no mention is made of the persistent and distressing spasmodic cough which is at times the only symptom of nasopharyngeal vegetations. Bromoform is recommended in whooping-cough, notwithstanding the well-known danger of the drug when given in emulsion, and despite its uncertainty of action. One misses the articles on achondroplasia and Mongolian idiocy in the former edition, but the full discussion of cretinism makes up for this loss. In the chapter are several reproductions of the illustrations in Osler's valuable article on sporadic cretinism. A good colored plate illustrates Koplik's spots which are so useful in the early and differential diagnosis of measles.

The author's long experience in the East London Hospital for Children makes the book one which every general practitioner would do well to have at hand. Throughout the work the best methods of clinical diagnosis are accurately described, and numerous references to journal articles and monographs add much to its value as a hand-book of the medical diseases of children.

**URINARY DIAGNOSIS AND TREATMENT.** By JOHN W. WAINWRIGHT, M.D. G. P. Engelhard & Company, Chicago, 1900.

DR. WAINWRIGHT's little book is one of the series of monographs issued by the Engelhard Publishing Company. It is a very practical little manual and will undoubtedly prove of excellent service to the student and the practitioner. The series of plates giving the appearance and color of crystals that are found in the urinary sediment is an excellent feature and very well executed. Some of the proof-reading has not been very carefully done. The practitioner who, following the instructions of the book, buys a half-inch instead of a one-twelfth-inch lens in order to examine urine bacteriologically will not bless the individual to whose carelessness the error is due.